

2562 Peden iron \& Steel co.. Houston, Tta DTuspli4 THE TEXAS 1914
 STATE INDUSTRIAL GUIDE


## Published by <br> THETE GALVESTIONTDANLIS NIEWS



THE OLD WAY
THE NEW WAY
of SMOKING MEAT

The picture on the left shows how our grand-daddies and out-of-date
folks of today smoke meats.
The picture on the right shows the new and up-to-date way of smoking meat.
One is the old wood smoke and the other is the new liquid smoke. The new liquid smoke contains exactly the same curing ingredients as the old wood smoke, but it requires only a very few minutes to apply the liquid smoke. You put it on with a brush or piece of cloth. There are several advantages in using the liquid smoke, which are as follows:

1. FIGARO is far less trouble and expense.
2. FIGARO smoked meat never spoils.
3. SKIPPERS never get in FIGARO MEAT.
4. Shrinkage is reduced by FIGARO.
5. FIGARO makes meat wholesome and delicious.
6. One jug of FIGARO cures 400 pounds of meat.

Figaro Liquid Smoke is made by condensing wood smoke to a liquid. Just as simple as anything in the world. Anybody with a little hand-distillery could make it if we did not have FIGARO patented. Then, too, having a very large distillery we can make it in large quantities and so much cheaper than individuals.

One of the most interesting things about Figaro to a person who has never used it is that the Figaro Chemical Company, with a capital of $\$ 250,000$, guarantees all above claims or refunds the money paid for it if it fails.

When you go to the store to buy the salt for your meat, at the same time buy your supply of Figaro. One jug is enough to cure four hundred pounds and costs only $\$ 1$.

Don't be afraid of Figaro for any reason. Your neighbors are using it; we have been selling it for eight years; and then, we absolutely guarantee it

## ASK YOUR GROCER <br> or write to

## Figaro Chemical Co., Dallas, Texas

## $H G+2562$

# Murphy \& Bolanz Company 

1004 COMMERCE STREET, DALLAS, TEXAS



JOHN P. MURPHY, Fresident. Established the business in 1874.
1874.

THE OLDEST REAL ESTATE FIRM IN TEXAS. 1914.

J. F. POWER,

Vice Pres. and Genl. Mgr.
Entered the employ of the firm in 1898 as col. lector.


CHARIES F. BOJ.ANZ. a Vice President. Becarne a member of the firm Jan. 1, 1884.

## TWENTY-SIX EMPLOYES.

Betinning business on a small scole FORTY YEARS ago, this firm at once took the lead in its line and has successfully maintained that lead during the years, growing with the growth of Dallas, and from an office force of TWO CLERKS. it has today TWENTY-SIX MEN looking after the interests of its many clients.

T"is firm is the complier and owner of the Official Map of the City of Dallan.
This firm hes the most complete records and set of block books in Texas.
This firm controls more rental fioperty than any firm in the city.
This firm renders and pays as aments more taxes on real estate than any other firm in the city.

This firm has figured in practically all of the important deals made in Dallas in the past QUARTER OF A CENTLTRY.

This firm has acted as purchaying agents of terminal facilities for nearly every railroad entering Dallas.

This firm assisted, in the purch'se of terminal facilities for the electric inter urbans and also for the Union Depot. and purchased for Butler Bros. the block of cround now occupied by this mamm th institution.

This firm has been active in pre ically evers BIG ENTBRPRISE and movement that has contributed to the buifding of Dallas.

The prosperity and present strenth of the firm and ith sure future growth are based upon a knowledge of DALLAS UITY real estate pained through years of er perience, mplendid organization. fetr deeling and capable. prompt handing of all busineos intrupted to it.

## Interesting Facts about John Deere Farm Tools

The first successiul steel plow was made by John Deere in 1837, and the remains of it are preserved in the Sample Room of John Deere \& Company at Moline, In.

The same year is remembered by some people now alive as the "Hunger Year," when there were wheat bounties in Maine and bread riots in New York City. Since the invention by John Deere of the steel plow, which made extensive farming in the West possible and profitable, and created the necessity of the reaper, the world has had what it never had before-enough bread to eat.

John Deere conceived the idea of a self-scouring steel plow.' His first plow bottom was made from a section of steel saw blade fashloned over a log, and had the peculiar John Deere shape. It was a marked success. It would scour-the first plow that ever did "clean off" in the sticky soils of the West.

For ten years John Deere sought to supply the demand for steel plows trom his blacksmith shop, then he built his first plow factory in Moline, III. In 1868 Deere \& Company was incorporated for $\$ 500,000$. Today the annual payroll amounts to more than twelve times the original capitalization.

In the first year of his business John Deere made three plows. In 1839 he made ten. In 1846 the first slab of plow steel rolled in the United States was rolled to his order, under his direction, and with machinery made and imported for him. In 1857 the factory at Moline had an annual output of 10,000 plows. In 1910 more than $1,000,000$ shares were manufactured annually for plows already in use, and these figures are steadily increasing.

## THE KEYNOTE OF SUOCESS.

Railroads and banks may not yet be all that can be desired, but, as In the case of the boy who complained that his bread was hard, it'" harder where there are none. And this was the situation in the earlv days of John Deere.

His first plows were delivered to his customers by his own teams and wagons and by the river to various distributing points. In order to raise money to build his first Moline factory he was compelled to canvass mercantile institutions throughout the country. and subscriptions were raised generally in amounts of less that $\$ 100 \mathrm{in}$ each place.

But the freight upon a single implement often exceeded its price at the factory. For this reason selling organizations were formed throughout the country under the name of John Deere Plow Company. The business of these companies includes the study of local needs and the responsibility of delivery to the farmer through the dealer at the low. est possible cost for transportation.

The buyer may generally rely upon competition to protect him against the payment of an unreasonable price. But he must rely upon the integrity and reputation of the manufacturer in respect to quality. John Deere goods are and have always been the highest qualfty ob-tainable-that is a fundamental principle of the business.

The John Deere line has been gradually extended until it now contains about everything a farmer needs in the way of farm tools.

The Soil Culture Department of Deere \& Company is maintained for the benefit of farmers who have problems to solve. At its head is an expert agriculturist. Difficulties met with by the progressive farmer are of special interest to this department and questions are answered cheerfully and without charge.

Dealers handing the John Deere line may be found in every town of importance throughout the United States and Canada.

Write to the John Deere Plow Company of Dallas, Tex, for full information concerning any implement in which you are interested. Valuable booklets can be had for the asking.


## OPPORTUNITIES

For investment along the Texas and Pacific Railway are worth investigating.

The country along the entire line from New Orleans and Texarkana to El Paso affords great possibilitics for develop-
 ment.

The rich bottom lands of Louisiana, the fruit, grain and cotton sections of North and East Texas, the irrigated farms and stock ranches of West Texas, together with the many live cities and rapidly growing towns present such a diversification of real openings for the investor, the farmer, the merchant and the craftsman that is not found elsewhere.

## 

There is no more interesting section of our great domain, with a variety of climate and modern hotels.

The Texas and Pacific Railway furnishes splendid facilities for travel through this territory, with frequent trains and through car service between Chicago, St. Louis, Memphis, New Orleans and Dallas, Fort Worth and EI
 Paso.

Ten days' stopover allowed at New Orleans and El Paso on all through tickets via Texas and Pacific Railway.

## TEXAS—Greatest in size Greatest in opportunities

Texas is not only conspicuous because of its size ; it is big with a bigness that is a marvel to all who know the State for what it is. The number and diversity of its products are in keeping with its size.

The price of good, rich land in Texas is so low that you can own a big farm there without investing much money or mortgaging the place. The land will raise as big or bigger crops than you are now raising, and you will get better prices for what you raise.

Why don't YOU go NOW, while good fertile land is still cheapwhere you can earn money every month; where your expenses are lower, your living easier and your soclal advantages as good or better than you have now. Texas is no longer wild-there are schools, churches, neighbors and modern towns near by, no matter where you locate. The homeseekers' excursion fares from the North on the first and third Tuesdays of each month give you an excellent opportunity of making an inspection trip at a slight outlay.

Possibly we can help you find the right spot. At any rate, write for copies of some Interesting books which will be helpful to you.
W. G. CRUSH Gen'l Passenger Agent M., K. \& T. Ry. of Teran Dallas, Texam

W. S. ST. GEORGE Gen'l Passenger Agent M., K. \& T. Railway St. Louis, Me.

In buying a tleket to Texas say "Katy" to the agent; he'll understand

## The Opportunities in Texas for Intelligent and Thritty Farmers Are Excellent

We want this kind in our territory and maintain a colonizatio: department with men who understand farm conditions in Texas ready to go to any State and give rellable information about any part of Texas that we serve and assist prospective farmers in securing the best farms for the least money. We also have a corps of practical agricultural experts to assist them in getting started right in the new country and to co-operate with them in solving their farm problems afterward. Your success is ours.


Texas produces within her 265,000 square mfles of soil all the products of agriculture grown in the temperate zone and many from the tropics. You may select any altitude from a semi-tropical to round of seasons.

You can find it in Texas close to the Santa Fe Railway, whether it be a good diversified farm in the North or Central Texas; an excellent stock farm on a first bottom irrigated farm in Central West Texas; a forty-acre farm growing three crops per year, including the staples in connection with winter vegetables, oranges, figs and strawberries, in the Gulf Coast Country; or a home in the deforested sections of East Texas, where a crop fallure is unknown and whert they raise more good things to eat to the square foot than any place in the country.

ALE OF THEM PRICED MCCH LOWER THAN IN OLDER STATES.

# The Santa Fe Furnishes FirstClass Transportation to All of Them 

R. J. KENNEDY, Colonisation Asent,

W. S. KEERNAN,<br>General Pamsenger Agent, GALVESTON, TREXAS.

# Pioneers in Development 

It is of record In the history of the American Continent that the builders of railroads have headed the pioneers in the development of new territory. "Bullders of empires" these men are called, and many have been given the pleasure to live to see a justification of their judgment and the materialization of well-concedved plans.

Pushing lines of steel out past frontier limits almost into the unexplored wilderness, but with a knowledge of future possibilities, railroad builders laid the foundation for new Territories. new States and new industrial developinent. They have opened up the treasures of the rugged mountains, made accessible great areas of rich and virgin soil and made homes for the millions. The history of rallroad bullding in this country is unique, romantic and thrilling. It is a bietory of development, of progress and of patriotism.

## The Fort Worth and Denver City Railway

The Fort Worth and Denver City Railway ia a ploneer in the Southwest. Conceived in the minds of its builders in 1873-when three-fourths of Texas was a whderness of forests and grass-grown plains, when leas than 100 white men faced the dangers of an almost unknown country west of the Brazos River; when millions of buffalo roamed the plains, or madly rushed ahead of the savages bent upon their slaughter, these men looked into the future and backed their judgment with their money. The work was completed in March, 1888, connecting Fort Worth and East Texas with the Now Mexican border at Texline. Four hundred and fifty-four miles of steel had been laid through a country occupied by Indians and a few hardy cattlemen.

## PROOF OF GOOD JUDGMENT.

The completion of this railroad from Fort Worth northwest through the Red River country and diagonally through the Panhandle was not immediately followed by a rush of settlers, other than those engaged in cattle raising. The lands were soon cut into great ranches of many thousands of acres each, and though it was recognized that the soil was rich and deep, the rainfall great enough for agricultural purposes and good water at a reasonable distance beneath the surface, this great area was known as a cow country. Cattle raising was the chief and only occupation and agriculture was discouraged.

Such conditions, however, could not always be maintained. The farmer pushed north and west, and during the last decade has demonstrated the value of the land for other purposes than for pasture, and has given positive proof of the good judgment of the men who conceived and built a railroad through it.

## REVOLUTION IN METHODS.

Supreme as a live stock country in earlier days. the Texas territory of the Fort Worth and Denver City Railway, through a revolution of methods, will, ere long. support more cattle and hogs per square mile than it ever did in its palmiest days of free grass. Modern. commonsense farming methods, which take into consideration the nature of the soil. the altitude and the climate, has revolutionized stock raising. In place of the rangy longhorn steer of the past, or the poor, but well-bred Hereford, Durham and other cattle of a decade ago, the farmers in this part of Texas are shipping to market the finished product, hundreds of pounds heavier per animal and worth more per pound than the best of those shipped to feeders in earlier days.

## STOCK FARMING THE THING.

The well-managed stock farm, whether as a dairy or as a producer of fat stock, is a profitable industry in all sections of the country. There are some sections where conditions are more favorable than others and those most familiar with the industry will indorse the statement that the country through which the Fort Worth and Denver City Railway and the Wichita Valley Railway pass is specially well adapted to the production and development of fine cattle and hogs. It is at Goodnight, in Armstrong County, where Col. Goodnight grazes one of the few herds of pure-blood buffalo in the United States, and where this same man has produced a new meat animal by crossing the buffalo with the Black Angus cattle, securing an animal partaking of the qualities of both, which animal he has named the catalo.

In every county along these lines of railway are fine herds of full-blooded Herefords. Durhams. Red Polls and other cattle. The old range animal is of the past, as are most of the old-time cow men. The country has developed. It is now prosperous with lits many fine farms, its modern cities and villages, schools and churches.

## A REASON FOR ALL THINGS.

The rapid progress made in the development of the Red River counties northwest of Fort Worth and the Panhandle, traversed by the Fort Worth and Denver City Railway, and Central West Texas, traversed by the Wichita Valley Railway, is due to a soil and climate which enables farmers and stock raisers to produce heavy crops of many varieties of feedstuffs. Formerly stock raisers trusted to favorable seasons for grazing, and if forced by bad weather, purchased feed from other sections of the State to carry their herds through. The modern stock farmer is a grower of feeds. In many counties alfalfa is grown, but in all counties sorghum, Kaffir corn, milo malze, Egyptian wheat, millet, feterita and other feedsturfs are produced in large quantities.

Kaffir corn and milo malze, under feeding tests, have been proved practically equal to the best grades of corn. Under ordinary methods it produces a much heavier acre tonnage and under test methods has been known to run from 75 to over 100 bushels of seed per acre. Both are a drouth-resisting crop. standing still in extremely dry weather, but making rapidly with a little moisture. These crops are even more certain than is corn in Illinols and Iowa.

## OTHER FEED CROPS.

The Spanish peanut is proving a favorite in some counties and will succeed in all. Baled with the nuts it makes an almost balanced ration. Gathered, the nuts command a good price, while the hay, worth $\$ 15$ per ton, is left. Peanuts for hogs is worth more than coln.

Sugar bects are a fattening feed and can be produced in the Panhandle countios. There are other root crops such as grown in other States, all of which are well adapted to this country.

## ADVENT OF THE SLLO.

The advent of the stlo has more than doubled the value of the feed crops of the Texas territory of the Fort Worth and Denver City Rallway and the Wichita Valley Rallway. Hundreds of silos are being erected in all sections. Thus are stock farmers able to save, not only their grains, but all their fodder. Kaffir corn, milo maize and sorghum make excellent ensilage, and cattle which were once fed on costly cotton seed meal and cake in wintertime are better satisfied with the contents of silos and go to market in better condition. The silo is transforming ranches, large and small, into well-kept, prosperous stock farms. Crops are being sold on the hoof, bringing larger prices and saving the fertility of the soll.

## OPPORTUNITIES FOR DAIRYING.

Texas produces in creameries and on the farm a total of $69,993,000$ pounds of butter annually and consumes $110,000,000$ pounds, importing from other States more than $\$ 10,000,000$ worth every twelve months. The opportunities for dairying in the countles of the territory under congideration can not be excelled, but they are ospecially good in Wise, Montague, Clay and adjoining counties because of the nearness of large consuming marknts. The woods in the cross-timber sections provide protection, while water is plentiful and pure, and the grazing throughout most of the year is excellent. Feedistuffs are easily grown and the protection needed, even for fancy stock, costs but little as compared with the expense incurred by dairymen in Wisconsin and New York. In no county in the territory of these rallways is butter and cream ever a drug on the market.

## GENERAL FARMING.

While stock farming is without doubt a most profitable venture in the Texas territory of the Fort Worth and Denver City and the Wichita Valley Railways, general farming is practiced in every county and at a profit. Outside of the Panhandle counties, cotton is a staple crop. Wheat, oats, corn and other grains are produced In large acreage, especially in Central West Texas, where the oat crop is generally large. Kaffir corn, maize, sorghum, peanuts and other feedstuffs previously mentioned are staple crops in all counties.

## FRUIT, TRUCK AND POULTRY.

Fvery farmer and stock raiser can grow his own fruit and vegetables and proAuce his own poultry and eggs. In the Panhandle conditions are favorable for apple orchards for commercial use. Many orchards are producing and many more are being set out. Cherries, peaches. small fruit and melons do well in this section. In other counties the same fruit is grown, peaches taking precedence over apples.

Truck farming, while never developd on a large basis, is not impossible, as has been demonstrated. poultry raising is profitable and increasing in favor with the people. In fact, the farmers in this country have all the advantages and opportunfties onjoyed in other States and many unknown to their old neighbors.

## DEVELOPMENT RAPID.

The Fort Worth and Denver City Railway traverses fourteen counties of Texas, exclusive of Tarrant County, in which Fort Worth is situated. In 1900 these counexces had a population of 86.707. In 1910 the population was 152,241, an increase of it per cent. Since the census in 1910 the population has increased at more than 100 per cent basis of a decade.

Nine of these counties produced 135.100 bales of cotton in 1908. In 1912 the production was 225.878, an increase of 77 per cent. The same comparisons will hold good in the counties served by the Wichita Valley Railway. Progress is everywhere: yet there are thousands of acres of untilled land waiting the coming of settlers-acres as good and as fertile as any now under cultivation, and this land can be secured at prices ranging from $\$ 15$ to $\$ 50$ per acre with reasonable terms.

## YOUR ACRE OF GROUND.

With these thousands of acres of virgin soil walting you in a country with excellent transportation facilities, good schools, churches and nelghbors-in a new country, yet modern, no man need be without his acre of ground-his own farm and home.

A personal inspection of this country is earnestly solicited. Proper and careful investigation will prove the truth of every statement in this article. It was not written or published to deceive, but for the purpose of presenting the advantages and opportunities of this wonderful country to readers who have a desire to make investments or to better their condition.

## EXPERIENCED FARMER AGENT.

The Fort Worth and Denver City Railway has an experienced farmer at your service. Mr. Henry E. Webb, himself a farmer and long familiar with the territory under consideration. knowing its soils, the climate and the possibilities. will be at your demand in selecting a location and in getting started right when settled.

We invite your attention to the discription of counties contained in this publica. tion in verilication of our statements.

For further information write to

# HISTORY AND GROWTH OF THE MAGMOLIA PETROLEUM COMPAMY 

## ORIGIN AND CONTROL

The Magnolia Petroleum Company had its origin in a purchase made at receiver's sale, Austin, Tex., Dec. 7, 1909 , by Mr. John Sealy of the banking firm of Hutchings, Sealy \& Co., Galveston, Tex., he purchasing for himself and associates the properties of the old Security Oil Company of Beauniont, Tex., and the Navarro lefining Company of Corsicana, Tex. After the purchase these properties were operated by the firm of Iohn Sesly \& Co. until April 24, 1911, when the owners thereof organized the Magnolia Petroleum Company, a foint stock association, whtch took over the properties and business purchased and operated by John Sealy \& Co. Since the organization of the Magnolia Petroleum Company its domicile has been Galveston. Its refining plants and main operating and business offices are located at Corsicana and Beaumont, Tex. The Company has been entirely contrulled in its operations by five trustees, they being John Sealy and It. Waverly Smith of Galveston, O. C. Edwards, now of Los Angeles, Cal.; E. R. Brown of Corsicana and George C. Greer of Beaumont, Tex. Mr. Sealy is president of the Company and takes an active and keen interest in its affairs. F. R. Brown is vice president and general manager, W. C. Proctor of Corsicana, treasurer; Courtenay Marshall of Beaumont, secretary, and George C. Greer, general attorney.

The stock of the Company is owned by and distributed among 139 Individuals. John D. Arehbold and H. C Folger Jr. of New Fork City own about 17,500 shares thereof, while the remaining shares, about 7.000 , are owned nearly entifely by citizens of Texas scattered over different portions of the State. Within the last few months many prominent business men residing at various points in this State, being impressed through the testimeny published in the newspapers concerning the Company, with its fair and efficient business methods and the future for the company, have purchased large quantities of stock from Messrs. Archbold and Folger, so that now the Magnolia Petroleum Company stands out prominently as one of the very large business organizations of the State in which her own citizens have an active and important interest.

## GROWTH AND EXTENT OF BUSINESS

The expansion of the business since John Sealy purchased and took his place at the head of the organization is an inspiring fact in which not only the members of the Magnolia Petroleum Company can well take pride, but likewise every citizen of Texas who feels an interest in the State's welfare and industrial development. The investment has increased from $\$ 6,000,000$ or less, representing the values when Mr. Sealy bought, to approximately $\$ 18,000,000$, the bulk of the increase consisting of new money invested since Mr. Sealy purchased. The entire invectment, with accumulated profits, is now in the business, working and entering into channels of industry and arteries of trade that make for the growth of this State and the useful and profitable employment of many of its citizens.

When Mr. Sealy bought, the two refineries were together running only some 4,000 to 5.000 barrels of oil per day, being operated at not exceeding half capacity, which was mainly due to their inability to obtain a supply of crude, neither having a pipe line connection with any oil field of consequence. Eich refinery had only a limited stock of crude oll and refined products. Proper facilities were lacking in many essentials. A very inadequate supply of crude by tank cars, the only source served only to keep up a kind of hand-to-mouth extstence. What to do to save the properties and make them pay was Indeed a tremendous problem. The enlisting of a large amount of money for the purpose of construrting a pipe line to an oil field, acquiring a stork of oll and adding numerous essential facilities was the prime condition to be met to put the properties on a paving basis and prevent thetr gradual decay and ultimate loss. Finally the Company, about December, 1911, succeeded in selling bonds and thus raising capital to construct a pipe line which opened up a future. An eight-inch line $2371 / 2$ miles long, connect. ing the Beaumont and Corsicana refineries, perfect and complete in every part and with scarcely a leak, Tas built between Dec. 1. 1911, and April 1, 1912 (a period of four months), on which latter date it was put
into efficient service by its builder, Mr. D. C. Stewart, a feat unsurpassed in the business.

The next stop was to extend the line to an oil field, and this work was at once und rahea. An extension from Corsicana to the Electra oil fielde, in Wichita Counts, was berun about April 1, 1912, and completed about Scpt. 1. 1912, when the fopany. for the first time, got on a sound business footing. This extension, covering a distance of 211.3 miles, made a total length of 449 miles of eight-inch trunk line owned and operated by the Company, besides the four lines from the Be umont refinery to the port rif Sabine, a distance of 38 miles, the field lines and those around the refineries. aggregating 375 miles. To the other transportation facilities of the Company must be added 676 tank cars now in its service.

The two refineries, of which E. E. Plumly is manager, have been enlarged and remodeled and put in first-class condition. With a fairly good (not adequate) supply of crude and enlarged and improved plants, the Company now manufactures about 10,000 barrels of oil per day as against only about 4.000 or 5,000 barrels when Mr. Sealy made his purchase. Of the 10,000 barels per day turned out, the Beaumont refinery manufactures about 8.000 and the Corsicana about 2.000. Additions to the Beaumont plant are now under way that will increase in the near future its daily capacitly some 2,000 or 3,600 barrels.

Practically all the various products of petroleum are manufactured by the Company, including all grades of Refined Oils and Naphthas, for both domestic and export trade; Lubricating Oils, embracing all grades of Cylinder and Engine Oils, Cup and Axle Greases, Road Oils and Asphaltum and Paraffine Wax. Articles made at its refineries $g_{1}$ out to all portions of the State and to many other States of the Union, as well as to various foreign markets, so that now the Magnolia Petroleum Company is becoming a familiar name to the business world.

Pursuant to a plan cherished by Mr. Sealy and his associates when he bought. the Magnolia Petroleum Company, upon its organization, began to enter actively into the marketing and distributing business in this State. To consummate this purpose it established a marketing department with headquarters in Dallas, Mr. A. C. Ebie being at the head of the same, and two divisions, a Southern and a Northern, with Meing at the head of the same, and two divisions, a Southern and a corthern, with tion to this the Company has expanded its marketing business into the State of oklahoma, where it has cstabilshed a division with Thomas Cowden as manager, having in operation twelve stations, and is planning in the near future to enter the State of Arkansas. Through the activity of the marketing department 220 sales stations and agencles have been established in Texas alone, they being in practically every city and town of importance in the State, through which the Companv markets the products manufactured by it at Beaumont and Corsicana-so that its Gasoline now drives automobiles on nearly every highway of the state, its Kerosene lightens homes in every county, its high-grade Lubricants (for the manufacture of which large and expensive additions have been only recently finished at Beaumont) are finding their way throughout the country to grease the engines of industry and the wheels of commerce; its Road Olls and Asphaitum are entering into the construction and upbullding of the States highways, including, notably, the million-dollar highway now being con. structed in Tarrant County, and the beautiful translucent Paraffine. Wax made by it is finding its way into channels of commerce to supply the girls with chewing gum, to make candles, to preserve fruits, to whiten clothes, to make moisture-proof paper, to protect stone and wires from the decaying effects of dampness. to coat and preserve cheese and to supply the numerous other uses to which that very important serticle is applifi

The Magnolia's business is not limited to Texas. Vast quantities of its products go into the trade in various pritions of the United States, fanada and Europe. From twelve to fifteen ship loads wi month lea m e the port of sabinc and many car loads are shipped from each refine; 10 supply the demand in firrope, Canada and distant States of this country, from which a golden stream returns to nourish and expand le industry at home.

In addifion to this the Company imports from Mexico on an average of 15.000 barrels of Mexican crude oil per day, or from ten to fifteen ship loads per month, that is used in the suppiy of fuel for several railroads of the State, some industries in Louisiana and many in this State, scattered from Fi Fuso to Texarkana and froin Denison to Galveston. For the receiving of this Mexican crude the Companv has established terminal facilities at Port Aransas, Gai.esion and Sabine Pass.

The employes of the Company, most of whom reside in rexas, reach a total number of 1.534, they being distributed all over the State at the varfons sales statlons, along the plpe line, at the refineries, at the shipning points and all the various offices of the Company. The payroll is approximately $\$ 1,000,000$ per annunt.

It is one of the Magnoila's cherished pians to extend its pipe line from Electra into Oklahoma so as to connect with oil fields of that State, and it is hoped that the word may soon be given to D. C. Stewart, manager of the pipe line department, to go ahead with this work.

The ambition of the officers and managers of the Magnolia Petroleurn Company is to build up a great and prosperous business in and around Texas, with Texas as a nucleus of that business; to accomplish inis b: open and fair methods that will stand the test of the severest scrutiny and criticism and come up to the highest standards prescribed by rondern thought and ethics for large business concerns; to provide useful and profitable employment for many; to so conduct the business as to deserve and evoke the loyal attachment and co-operation of its employes, and 6 earn at the same time, profitable returns for its owners.

It is a source of pride to every one connected with the Company that there is a spirit of zeal and harmonious co-operation pervading the organization. Those connected with it do not seem to be lacking in the faith and purpose that make the plan of today the accomplished fact of tomorrow.

## By J. E. Farnsworth

The story of the Southwestern Telephone Company in Texas is one which makes manifest the magic power of a few determined men to will into existence, as great obstacles are surmounted, a changed condition-to bring about an improvement almost revolutionary in character in the methods of life.

Today there are 281,274 telephones east of the Pecos River connected in one system. Three million five hundred thousand out of four million inhabitants of the State have been brought within the bounds of a wonderful intercommunicating wire syst $\epsilon \mathrm{m}$. One hundred thousand miles of long distance wire bind them together in one close association of like ideals, similar characteristics and mutual understanding.

Towns, cities and farm houses are like the individual offices of a great business organization. Those who consider their affairs important enough in the machinery of government and society to participate in the benefits so acerued are "on the lines." Toll stations and pay stations and public telephones are everywhere.

While in. 1895 there were no exchanges in Texas with more than 750 telephones, today therr are thirty-five with more subscribers than were reported in any of the large cities of the State at that time.

It was when it was discovered that long distance telephony was a practical success the development of the system of The Southwestern Telegraph and Telpphune Company became pronounced. Inventions and improvements of physical conditions made this possible. Eefore 1888 no more than one pair of wires could be placed on the same pole line. "Cross talk" and interference could not be prevented until the principle of transposition or crossing of wires was evolved. The first modern long distance line was built by The Southwestern Company between Sherman and Dallas in 1892. The same year another line was constructed between Fort Worth and Dallas. Today there are in the Soutnwestern and connecting universal system in Texas more than 100,000 miles of toll wire.

Over the tremendous system developed by The Southwestern Telegraph and Telephone Company within so few years, 437,134,154 local and long distance calls were handled during 191.2. This is in comparison with the $200,000,000$ pieces of mail matter handled through the Texas postoffices. The Southwestern Telegraph and Telephone Company now has 4,400 employes on the payroll, advertises in 400 newspapers, and is endeavoring by every possible means to increase the number of subscribers, that added value may be given to the service rendered.

The Southwestern (Bell) Telegraph and Telephone Company and its connecting companies has intimate relations with and serves more people daily than any corporation operating in the State. Its facilities are used constantly by more patrons than all the railroads combined. It is estimated that not less than one million people talk over its wires each day. It is one of the most potent factors in the development and the life of the people of Tevas, and its ambition is to so serve them as to meet with their hearty encouragement, co-operation and approval. It is believed by the management that the policy of the company in the past has merited this, and it hopes to deserve the same in the future.

## SHARPLES

Look to the sections of greatest agricultural wealth and what do you find?

## DAIRY COWS!

The stony farms of New Hampshire and Ver-mont-long abandoned because fall crops failedhave been reclaimed by the dairy cow.

## TUBULAR

The great corn belt of Illinois that waxed so fat by feeding beef cattle for the Chicago market has built silos and is today producing butter.

To every single square mile in the State of Iowa there are twenty-six cows milked twice a day.

## CREAM

Australia and New Zealand, once the greatest wool-producing countries of the world, are now devoting their energies to dairying, although they have to ship their product 3,000 miles to market.

## SEPARATORS

The farmers of England, France and Germany make a sure living from a five-acre lot by keeping dairy cows.

Take the world over and you will find that the agricultural wealth of any community is measured by the number of cows it contains.

Write for a Copy of Our Illustrated Booklet, "BUSINESS DAIRYING" Sharples Separator Co. of TEXAS - - - - DALLAS

## A Brief Sketch of The News

IT HAS been said that if an adequate history of Texas shall ever be written two conditions must be satisfied: A competent historian must be supplied, and he must have access to the files of The News. Of the two conditions the last named is perhaps the more indispensable. Given access to the files of The News, an indifferent historian might compose a fairly good history of Texas. while it is certan that no historian, however great his genius, could do himself or his subject full justice unless possessed of an immense mass of material that is to be found only in the columns of The Galveston News.

The Galveston News was established in $\mathbf{1 8 4 2}$. There were other newspapers in Texas then, but none of them has survived the seventyone years that have succeeded. The Galveston News has witnessed the passing of all that were its contemporaries of that day, as it has witnessed the coming of all that are its contemporaries of this day. It is the sole journalistic repository of much that is essential to the biography of Texas since it became a civilized habitat. And when civilization, keeping for a long time close to the coast line, stretched so far northward and became so dense that The Galveston News could not continue to be a State paper, The Dallas News was established 315 miles to the northward. This was in 1885 . Since then the task of recording the history of Texas as it was made has been shared by the two, The Galveston News concerning itself more particularly with the progress of events in South Texas and The Dallas News with the progress of events in North Texas.

It was not merely a desire to seize a business opportunity that led to the establishment of The Dallas News. It was no less due to the ambition to maintain the character and influence of The News as a State institution. This could be done only by printing substantially the same paper in opposite ends of the State. Distance made it impossible for The Galveston News to serve North Texas and the immense area of the State over which the population had expanded put hundreds of thousands beyond its reach. These considerations and the difficulty and cost of gathering, from a single base of operation, the news of a State larger than the German Empire were too great to make the attempt practicable. Hence there were journalistic as well as financial reasons for establishing, within seventy-four miles of Red River, another base of operations from which to carry on the work of publishing a newspaper that could literally serve all Texas.

The wisdom of that idea has been abundantly vindicated. With what is virtually one newsfaper published in duplicate at almost two opposite ends of the State, The News is able to reach fully threefourths of the State's population before noon. By nightfall of the dav of publication probably four-fifths of the population of Texas are able to read The News. Texas is far and away the largest State in the Union; and yet, notwithstanding its great distances, there is no State in the Union so completely covered as Texas is by The News.

Other advantages than this accrue from this duality. One of them is the greater facility and greater economy of gathering the essential news of Texas. It is the practice of other newspapers, both in Texas and other States, to rely on press agents and on one another in large measure for their State news. The News relies only on its own correspondents, with the result that it can exercise over its news columns
a supervision that it is not practicable for any other newspaper to exercise, if, indeed, it is possible. It is largely because of the supervision it is thus enabled to exercise that The News has won a reputation for reliability that few other newspaper can even rival, and which none can excel. It has sentinels under its own discipline and subject to its exclusive direction in every city and town in Texas; and in addition to this army of correspondents it has staff men stationed throughout Texas and in Oklahoma at points which enable one or more of them quickly to reach any point where there is an outbreak of extraordinary news.

It is largely because of this unrivaled organization that The News has thus been able to earn and maintain the reputation as not only beyond comparison the foremost newspaper in Texas, but, in point of catholicity, one of the foremost of the United States. For because of the fact that it has homes in opposite ends of the State and serves every section of the State, it would be impossible for The News to become provincial, even if it were tempted to do so. Serving so many localities and dependent on the patronage of such diverse peoples, The News is compelled to regard the whole field of human interest as its proper province. The criticism is often made of nearly all metrofolitan journals that they have scant concern with anything that happens beyond the confines of their own immediate community. In a State so large and diverse as Texas the danger of becoming provincial or sectional is particularly great; but the fact that The News is as equally at home in North Texas as in South Texas and the further fact that it circulates as easily and as widely in East Texas as in West Texas constitute reasons which render it impossible that The News should have a constricted interest or be biased, in its opinions, by local prejudices.

The prosperity of The News has been uninterrufted. It has acquired a financial strength that is the surest guaranty of independence. It is able to impose on both its news and advertising colunins whatever censorship its sense of right and propriety may prescribe, and it has been able to form and express its editorial opinions untramelled by the fear that it might affront a mood of the moment. The News has the largest newspaner-making plant in the South, and one of the largest in the United States; it has one of the largest and most expensive staffs in the country. But The News cherishes neither nor both of these so much as it cherishes its intellectual independencethe independence which enables it to reject the adrrtisement that is repugnant to its sense of propriety; the independence to consign to the wastebasket the news "story" which it thinks ought not to be intruded into the homes of its readers, and the independence to express its opinions, even though that expression should collide with the opinion of the majority.

The News esteems this freedom as its greatest asset, the freedom of having no other monitor than its own conscience. And it is because of its jealous safeguarding of this freedom that it has gathered to itself not merely the largest, but the best clientele that Texas affords. The News enjoys not only the admiration, but the confidence of the people of Texas. They know that they can put it into the hands of their wives and daughters without fear that they will see aught in it to make them blush, and they know that The News is inspired by a loyalty to Texas and a fidelity to its own opinions that guarantees the worthiness of its purpose.

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A. W. PYE, G. P. A .PIer 36, N. R., NEW YORK

## TEXAS ALMANAC

AND STATE INDUSTRIAL GUIDE

1914

FOR THE DEVELOPMENT OF TEXAS

An Authoritative Handbook and a Potent Factor in the Upbuilding and Development of the State. Contains Complete Data Relative to the Progress of Texas Along Commercial, Industrial, Religious and Educational Lines. Political, Census, Manufacturing, Transportation and Agricultural Statistics

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The 1914 Texas Almanac Has Been Compiled for the Use of the Farmers, the Business Men, Professional Men, Transportation Men, for Teachers and Pupils.

Issued by
A. H. BELO \& COMPANY

Publishers of
The Galveston-Dallas News
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When you have read all there is in The Texas Almanac you should know all about Texas.

If not all, then at least a sood working knowledge of this State of splendid possibilities and brilliant prospects. Now, if you desire to "keep up with the procession"-- to know as it happens what is going on within ita borders-you should SUBSCRIBE AT ONCE for

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> The Farmers' Forum, the Woman's Century, Our Little Men and Women, Editorials on Public, Religious and Educational Topics, Stories of Instruction and Interest

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## PREFACE

In offering the 1914 Texas Almanac and State Industrial Guide to the public, the publishers do so with a knowledge that previous issues lave received hearty commendation from the people in general and cordial indorsement from prominent and progressive citizens of the State.

Previous issues have been acknowledged as potent factors in stimulating the progress of Texas. The igi4 Texas Almanac has been carefully compiled and is published with the end in view of not only equaling, but of excelling other issues in influencing the development of the State in all lines of human endeavor.

The great area of Texas and the rapid development of its natural resources in sections far removed from others; the differences in altitude, rainfall, climate, topography and soils and the various conditions under which industry thrives and the people live, makes almost necessary a publication of this character.

Texas is a great State in more ways than area. To prevent a division of territory, to insure local and State government just and satisfactory to the people of all sections, the citizens of Texas now in control of its government, industrial, educational and religious life, and the generations to come, must be equipped with a thorough and reliable knowledge of the life and resources of all sections.

The Texas Almanac is published for the purpose of providing a convenient and reliable source of information concerning Texas. As such it is presented to the citizens of Texas and other States.
A. H. BELO \& CO.

January, 1914.

1mt Month．JANUARY， 31 Daym． Moon＇s Phases－First Qr．，Jan．A．6：30 a．m．Full．Jan．11，10：39 p．m．Last Qr． Jan．18，6：00 p．m．New，Jan．26，12：04 a．m．


Black figures indicate p．m．，others a．m．
2d Month．FERRUARY． 28 Dayn．
Moon＇s Phases－First Qr．，Feb．3，4：03 a．m．Full，Feb．10，11：05 a．m．Last Qr．， Feb．17，2：53 a．m．New，Feb．24， $5: 32$ D．m．

\begin{tabular}{|c|c|c|c|c|c|c|}
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\hline \& \& Wed． \& \& \& \& 1：35 <br>
\hline \& \& Thurs． \& \& 5：83 \& 12：25 \& 2：36 <br>
\hline \& \& Fri． \& 6：52 \& 5：34 \& 1：17 \& $3: 39$ <br>
\hline \& \& Sat． \& 6：51 \& 5：35 \& 2：20 \& 4：36 <br>
\hline \& \& Sun． \& 6：80 \& 5：88 \& 8：88 \& 5：39 <br>
\hline \& \& Mon． \& \& \& $4: 39$ \& <br>
\hline \& \& Tues． \& \& 15：37 \& 5：51 \& 6：58 <br>
\hline \& \& Wed． \& \& 5：38 \& 7：01 \& 7：35 <br>
\hline \& \& Fri． \& \& \& 9：20 \& 8：35 <br>
\hline \& \& Sat． \& 6：45 \& $5: 41$ \& 0：27 \& 9：10 <br>
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\hline \& \& Mon． \& $6: 4$ \& 5：48 \& \& 10：20 <br>
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$1: 52$

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\hline \& \& Fri． \& 6：39 \& ：48 \& 4：540 \& 1：52 <br>
\hline \& \& Sun． \& 6：37 \& 5：49 \& 5：21 \& 8 8：56 <br>
\hline \& \& Mon． \& 6：86 \& 5：50 \& 5：54 \& 4：56 <br>
\hline \& \& Tues． \& 6：35 \& 5：51 \& 6：26 \& 5：52 <br>
\hline \& \& Wed \& 634 \& 5：51 \& 6：52 \& 6：48 <br>
\hline \& \& Thurs． \& 6：33 \& 5：52 \& 7：16 \& 7：44 <br>
\hline \& \& Fri． \& 6：32 \& 5：53 \& 7：40 \& 8：37 <br>
\hline \& \& Sat． \& 6：31 \& 5：5 \& 8：04 \& 9：38 <br>
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Black figures indicate p．m．，others a．m．

3d Month．MARCF．
31 Days． Mon＇s Phases－First Qr．March 10：33 p．m．Fu！1．March 11，9：48 p．m． I，ast Qr．March 18，1：09 p．m．New． March 26．11：39 a．m．


Llack figures indicate p．m．，others a．m．
4th Month．APRIL． 30 Daym． Moon＇s Phases－First Qr．，April 3，1：12 ${ }_{\text {p mpril }}^{\mathrm{m}}$ Full，April 10，6：58 a．m．Last Qr． a．m．

|  | 㕍 | Week． | 荋 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 91 |  | Ved． |  | 16：17 | 8：591 |  |
| 92 |  | Thurs． | 5：5 | 6：18 | 9：31 | 12：12 |
| 93 | 3 | Fri． | 5：49 | 6：18 |  |  |
| 84 | 4 | Sat． | 5：48 | 6：19 | 11：57 | $1: 56$ |
| 85 | 5 | Sun． | 5：4月 | 6：80 | 1：04 | 2：40 |
| 96 | 6 | Mon． | 5：45 | 6：20 | 2：11 | 3：18 |
| 97 | 7 | Tues． | 5：44 | 6：21 | $3: 81$ | 3：55 |
| 98 | 8 | Wed． | 5：43 | 6：21 | 4：81 | 4：27 |
| 99 |  | Thurs． | 5：42 | 6：21 | 5：40 | 4：59 |
| 100 | 10 | Fri． | 15：41 | 6：22 | 6：56 | 5：3． |
| 101 | 11 | Sat． | 5：40 | 6：23 | $8: 10$ | 6：06 |
| 10. | 12 |  |  |  | 9：88 | 6：49 |
| 103 | 13 | Mon． | 5：37 | 6：25 | 10：82 | 7：40 |
| 104 | 14 | Tues． | 5：36 | 6：25 | 11：37 | 8：36 |
| 105 | 15 | Wed． | 10：38 |  |  |  |
| 116 | 16 | Thurs． | $5: 33$ | 6：87 |  |  |
| 107 | 17 | Fri． | $5: 32$ | 6：87 |  | 11：48 |
| 108 | 18 | Sat． | 5：31 | 6：28 | $2: 00$ | 12 |
| 109. | 19 | Sun． |  | 6：28 | 그를 |  |
| 110 | 20 | Mon． | 5：29 | 6：29 | 2：58 | 2：40 |
| 111 | 21 | Tues． | 5：28 | 6：81 | 3 3：24 | 8：88 |
| 119 | 29 | Wed． |  |  |  | 4：87 |
| 113 | $\stackrel{3}{2}$ | Thur | 5：25 | 6：31 | 4：139 | 6：19 |
| 115 | 25 | Sat． | 5：24 | 6：32 | 5：05 | 7：11 |
| 116 | 26 | Sun． | 5：23 | 6：38 | 5：38 | 8 ： |
| 117 | 27 | Mon． | 5：22 | 6：34 | 6：16 | 9：08 |
| 118 | 28 | Tues． |  | 6：35 | 6：69 | 10：07 |
| 118 | 29 | Wed． | $5: 20$ | 6：86 | 7：48 | 1：01 |
| 120 | 30 | Thurs． | 5：19 | 6：86｜ | 8：45 | 11：68 |

[^1]

Black figures indicate p.m., others a.m
6th Nonth. J世*N. 30 Dasim.
Moon's Phases--First Qr.. June 1. I: 3 : a.m. Full, June 7. 10:48 p.m. Last Qr.



Eluck firutes indicate p.m., othert a.m.

## 

 Moon's Ploses Fil!, Aug. 5, 6:11 p.m Least Qr. Aug. 13. 6:16 p.in. New. Aug. $\therefore 1.5: 50$ a.m. E'irst Qr.; Aug. 2\%. 10:2. p.m.

Black figures indicate p.m., others m.m.

9th Month．SEPTEMBEIL，30 Daym．
Moon＇s Phases－Full．Sept．4，7：31 a．m． Last Qr．，Sept．1ٌ，11：18 a．m．New．Sept． 19．3：03 p．m．First Qr．，Sept．26．5：33 a．m．

| $\begin{array}{\|c} \dot{む} \\ \stackrel{y y}{心} \end{array}$ |  | Week． |  | 岕 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 244 |  | Tues． | 5：371 | 16：23 | 4：54 | $\stackrel{3}{3}: 41$ |
| 545 | 2 | Wed． | ｜5：38｜ | 16：22 | 5：29 | 3：42 |
| 246 | 3 | Thurs． |  | 6：21 | 5：57 | 4：43 |
| 247 |  | Fri． | 5：391 | 6：20 | 6：23｜ | 5：41 |
| 248 |  | Sat． | 5：40 | 6：18 | 6：49 | 6：35 |
| 249 |  | Sun． |  |  | 7：15 | 7：31 |
| 250 |  | Mon． | 5：41 | 6：16 | $7: 401$ | $8: 37$ |
| 251 |  | Tues． |  |  | $8: 09$ | 9：29 |
| 252 |  | Wed． | 5：42 |  | $8: 41$ | 10：17 |
| 253 | 10 | Thurs． | 5：431 | 6：11｜ | 9：181 |  |
| 954 | 11 | Fri． | 5：43： | 6：10 | 10：02 | 12：12 |
| $\bigcirc 55$ | 12 | Sat． | 5：44 | 6：09 | 10：51 | 1：13 |
| 256 | 13 | Sun． | 5：44 | 6：08 | 11：50 | 2：05 |
| 257 | 14 | Mon． | 15：45｜6：0 | 6：06 |  | 2：54 |
| 258 | 15 | Tues． | 5：4516 | 16：05｜ | 12：53 | 3：41 |
| 259 | 16 | Wed． | 5：46｜c｜ | 6：04 | 1：58 | 4：18 |
| 260 | 17 | Thurs． | 5：461 | $6: 03$ | 305 | $4: 55$ |
| 26 | 18 | Fri． | 5：47 | 6：01 | 4：12 | $5: 27$ |
|  | 19 | Sat． | 5：47 | 6：00 | 5：20 | $5: 59$ |
| 263 | 20 | Sun． | 5：48 | 5：59 | 6：30｜ | 6：30 |
| 264 | 21 | Mon． | 5：4915 | 5：57 | 7：41 | 7：05 |
| 265 | 22 | Tues． | 5：501 | 5：56 | 8：54 | 7：44 |
| 266 | 23 | Wed． | 5：511 |  | 10：06 | 8：30 |
| 267 | 24 | Thurs． | 5：511 | 5：54＇ | 11：16 | 9：24 |
| 268 | 25 | Fri． | 5：5는 | $5: 531$ | 12：24 | 10：23 |
| 269 | 26 | Sat． | 5：502 | 5：52｜ | 1：28 | 11：29 |
| 270 | 27 | Sun． | 5：23｜5 | 5：51｜ | $2: 131$ |  |
| 271 | 28 | Mon． | 15：53｜ |  | 2：56 | 12：3： |
| 272 | 29 | Tues． | 5：54 | 5：48 | 3：29 | 1：36 |
| 273 | 30 | Wed． | 5：54 | 5：46！ | 4：00 | 2：38 |

Black fioures indicate p．m．，others a．m．
10th Monthe OCTORER．31 Days．
Moon＇s Phases－Full，Oct．3，11：29 p．m． Last Qr．，Oct．12．3：03 a．m．New．Oct． 19，12：03 a．m．First Qr．，Oct．25．4：14 p．m


Black figures indicate p．m．，othera a．m．

11th Month．NOVEMBER． 30 Days． Moon＇s Fhases－Full．N゙ov．2，5：19 p．m last Qr．，Nov． $10,5: 07$ p．m．New．Nov． 17．9：3：a．m．First Qr．．Nov．24，7：09 a．m，

| $\begin{gathered} 5 \\ 8 \\ 5 \\ 5 \\ \hline \end{gathered}$ | $\stackrel{E}{5}$ | Wrek． |  | $\begin{gathered} \text { H } \\ \text { 苟 } \\ \text { in } \\ \hline \end{gathered}$ | $\begin{aligned} & \dot{0} \\ & \text { 荷 } \\ & \vec{H} \\ & 0 \\ & 0 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 305 | 1 | Sun． | $6 ; 17$ | 5：09 | 4：13 | 5：09 |
| 306 | 2 | Mon． | 6：18 | 5：08 | $4: 44$ | 6：03 |
| 307 | 3 | Tues． | 6：19 | 5：08 | 5：17 | 7：00 |
| 3081 | 4 | Wed． | 15：20 | 5：07 | 5：56 | 7：59 |
| 3091 | 5 | Thurs． | 6：30 | 5：07 | 6：42 | 8：56 |
| 310 | 6 | Fri． | ｜6：21 | 5：06 | 7：33 | 9：52 |
| 311 |  | Sat． | $6: 92$ | 5：06 | 8：30 | 10：41 |
| 312 | 8 | Sun． | 6：92 | 5：051 | 9：30 | 11：28 |
| 313 | 9 | Mon． | 6： 3 | 5：04 | 10：32 | 12：10 |
| 314 |  | Tues． | ． $16: 3$ | 5：03 | $11: 35$ | 12：45 |
| 315 |  | Wed． | 6：24！ | 5：02！ |  | $1: 19$ |
| 316 |  | Thurs | 16 | 02 | 12：39 | 1：51 |
| 317 |  | Fri． | 6：26 | 5：01 | 1：49 | 2：20 |
| 318 | 14 | Sat． | 16：28 | 5：00 | $\underline{2} 50$ | 2：50 |
| $\therefore 19$ | 15． | Sun． | 6： 6 ！ | 5：00 | 4：011 | 3：27 |
| $3: 0$ |  | Mon． | 6：30｜ | 4：591 | 5：14 | 4：06 |
| 3 3 1 |  | Tues． | 6：211 | 4：59 | 6：291 | 4：56 |
| $32 \%$ | 18 | Wed． | 6：32 | 4：58 | 7：44 | 5：54 |
| 3－3 | 191 | Thurs． | 6：33 | $4: 58$ | 8：54 | 6：57 |
| 3.4 | $\bigcirc 01$ | Fri． | 6：34 | 4：57 | 9：571 | $8 \cdot 07$ |
| 325 | 21. | Sat． | 6：35） | $4: 57$ | 10：46 | 9：15 |
| 326 | 22 | Sun． | $16: 36$ | 4：56 | 11：29 | 10：19 |
| 327 | 23 | Mon． | 6：37 | 4：56 | 12：03 | 11：21 |
| 328 | 24 | Tues． | 16：38｜ | $4: 5611$ | 12 ：331 |  |
| 399 |  | Wed． | 6：39 | 4：561 | 1：00 | 12：2i |
| 330 | 26 | Thurs． | 6：39｜ | 4：56 | 1：26 | 1：14 |
| 331 | 27 | Fri． | 16：40｜ | 4：56 | 1：50 | 2：10 |
| 332 | 28 | Gat． | 6：4114 | 4：55 | 2：171 | 3：03 |
| 233 | $29 / 5$ | Sun． | 6：431 | 4：55 | 2：44 | 3：59 |
| 334 | $30 \mid$ | Mnn． | 16：43｜ | 4：55 | 3：17｜ | 4：57 |

Black figures indicate p．m．．others a．m．

## 12th Month．DECEMBER．31 Days．

Moon＇s Phases－－Full，Dec．2，11：51 a．m． Last Qr．，Dec 9．5：02 a．m．New，Dec． 16．8：05 p．m．First Qr．Dec．24，1：55 a．m．

| $\cdots$－Day of－－－－－Hour of－－ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \dot{\sim} \\ \underset{\sim}{c} \\ \hline \end{gathered}$ | $\begin{gathered} \underset{y}{5} \\ \underset{\sim}{5} \\ \hline \end{gathered}$ | Week． |  | $\stackrel{3}{c}$ $\stackrel{y}{n}$ $\stackrel{y}{c}$ $\stackrel{\rightharpoonup}{r}$ | $\begin{aligned} & \dot{4} \\ & \frac{W}{2} \\ & E \\ & 0 \\ & 0 \\ & S \end{aligned}$ |  |
| 335 |  | Tues． | 6：44 | 4 ：551 | 3：57 | 5：51 |
| 336 | 2 | Wed． | 6：44 | 4：55 | $4: 41$ | 6：48 |
| 337 | 3 | Thurs． | 6：45 | 4：55 | 5：30 | 7：47 |
| 338 |  | Fri． | 6：45｜ | 4：55 | 6：25 | 8：38 |
| 339 | 5 | Sat． | 6：46 | 4：55 | 7：26 | 9：26 |
| 340 | 6 | Sun． | 6：46 | 4：55 | 8：26 | 10：10 |
| 341 | 7 | Mon． | 16：47 | 4：55 | 9：28 | 10：47 |
| 343 | 8 | Tues． | 6：48 | 4：56 | 10：29 | 11：21 |
| 343 | 9 | Wed． | 6：40｜ | 4：56｜ | 11：30 | 11：51 |
| 344 | 10 | Thurs． | 6：50｜ | 4：56｜ |  | $12: 20$ |
| 345 | 11 | Fri． | 6：51 ${ }^{1}$ | 4：56 | 12：36 | 12：49 |
| 346 | 12 | Sat． | 6：51 | 4：56 | 1：43｜ | 1：20 |
| 347 | 13 | Sun． | 16：52｜ | 4：56 | 2：50 | 1：59 |
| 348 | 14 | Mon． | 6：53｜ | 4：57 | 4：031 | 2：39 |
| 349 | 15 | Tues． | 16：53｜ | 4：57 | 5：17 | 3：34 |
| 350 | 16 | Wed． | 6：万4 | 4：57 | 6：28 | 4：32 |
| 351 | 17 | Thurs． | 6：54 | 4：57 | 7：35 | 5：43 |
| 352 | 18 | Fri． | 6：55 | $4: 57$ | 8：32 | 6：54 |
| 353 | 10 | Sat． | 6：55 | 4：57 | 0：20 | 8：00 |
| 354 | 20 | Sun． | 6：56 | 4：57 | 10：00 | 9：08 |
| 355 | 21 | Mon． | 6：56 | $4: 58$ | 10：31 | 10：07 |
| 356 | 29 | Tues． | 6：57 | $4: 58$ | 11：00 | 11：04 |
| 357 | 23 | Wed． | 6：57｜ | 4：58 | 11：27 |  |
| 358 | 24 | Thurs． | 6：38 | $4: 59$ | 11：52 | 2：01 |
| 359 | 25 | Fri． | 6：58 | 4：59 | 12：18 | 2：55 |
| 360 | $\underline{56}$ | Sat． | 6：59 | 5：00 | 12：461 | $1: 52$ |
| 361 | 27 | Sun． | 6：591 | 5：01 | 1：18 | 2：46 |
| 362 | 28 | Mon． | $7: 0015$ | 5：02 | 1：54 | 3：42 |
| 363 | 29 | Tues． | $7: 0015$ | 5：03 | 2：35 | 4：42 |
| 364 | 30 | Wed． | 7：01 | $5: 04$ | 3：24 | 5：37 |
| 365 | 31 | Thurs． | 7：0115 | $5: 05$ | 4：17 | 6：34 |

Black figures indicate y．m．，others a．m．

TIME USED IN GALIGNDAR.
The moon's phases are given in "standard" or "railroad" time, and are the same all over Texas. The times of sunrise, sunset, moonrise and moonset are given in "local" or "sun" time. To get the railroad or standard time of these risings and settings add 4 minuten to the tabulated time for every degree of longitude greater than 90 . Thus the local time of sunrise on January 1 is 7:01; to get the railroad time of sunrise at longitude 97 degrees add 28 minutes, getting 7:29 for the rallroad time of sunrise at that longitude. Texas lies between longitude 94 (Texarkana or Beaumont) and longitude 107 (El Paso).

## ECLIPSES.

In the year 1914 there will be four eclipses, two of the sun and two of the moon.

1. An annular eclipse of the sun on Feb. 24, visible only in the southern part of the Pacific Ocean, including Tierra del Fuego. South Shetland Islands, New Zealand, Society Islands and Low Archipelago.
2. A partial eclipse of the moon on March 11, visible at the beginning in Europe, Africa, Atlantic Ocean, North and South America. and at the ending in Western Europe, Western Ifrica. North and South America and the central and eastern poritons of the Pacific Ocean. This partial eclipse will therefore be visible all over Texas. In standard time the eclipse begins at 8:42 p.m. and ends at 11:44 p.m., the middie of the eclipse falling at 10:13 p.m., when about 0.9 of the moon is obscured.
3. A total eclipse of the sun on Aug. 20, the path of the total eclipse extending from Northern Greenland across Normay, Sweden, Western Russia, Black Sea and Persia to Western India. This eclipse is invisible in Texas and is barely visible as a very partial eclipse in the United States only in the northeastern corner.
4. A partial eclipse of the moon on Sept. 4, the beginning visible in Western North America, the Pacific Ocean, Eastern Asia and Australia, the ending visible in the central and western portions of the Pacific Ocean. Asja, Australia. Indian Ocean and East Africa. Practically invisible in Texas, where the eclipse begins at 5 a.m. and the moon sets at 6:11 a.m.. standard time, on Sept. 4. In Texas the moon will therefore set before any obscuration is noticeable, the middie of the eclipse falling at $8 \mathrm{a} . \mathrm{m}$.

TRANSIT OF MERCERY.
Mercury will cross the sun's disc on Nov. 7; the ingress will be visible in Western Australia, Central Eind Western Asia, Europe, Africa and South America: the egress will
be visible in Southwest Europe, Africa, South America and in North America with the exception of the northwestern portion.

Central Standard Time of the Phasen.
Ingress............
Nearest sun's center...... 6:03 a.m.
Sunrise ........................6:52 a.m.

At sunrise in Texas, therefore, Mercury will be over two-thirds of the way across the face of the sun, and neither the ingress nor the midale of the transit will be visible. The apparent diameter of Mercury will be about one twohundredth of that of the sun.

## PLANETARY CONFIGURATIONS.

Mercury and Venus are best situated for observation before and after reaching their greatest west or east of the sun. Mars, Jupiter, Saturn, Uranus and Neptune are best situated for observation before and after "opposition," when they are to be found in that portion of the sky which is opposite the sun. When "in conjunction" two heavenly bodies are to be found close together in the sky. None of the planets, therefore, is favorably situated for observation when "in conjunction" with the sun.
Jan. 3-Earth nearest sun.
Jan. 5-Mars and sun in opposition.
Ian. 9-Saturn and moon in conjunction.
Jan. 11-Mars and moon in conjunction.
Jan. 12-Neptune and moon in conjunction.
Jan. 17-Neptune and sun in opposition.
Jan. 20-Jupiter and sun in conjunction.
Jan. 25-Mercury and sun in conjunction.
Jan. 25-Jupiter and moon in conjunction.
Jan. 25-Venus and moon in conjunction.
Jan. 26-Mercury and moon in conjunction.
Jan. 26-Uranus and moon in conjunction.
Jan. 28-Uranus and sun in conjunction.
Feb. 5-Saturn and moon in conjunction.
Feb. 7-Mars and moon in conjunction.
Feb. 8-Neptune and moon in conjunction.
Feb. 11-Venus and sun in conjunction.
Feb. 22 -Jupiter and moon in conjunction.
Feb. 22-Mercury furthest east from sun, $18^{\circ} 8^{\prime}$.
Feb. 22-Uranus and moon in conjunction.
Feb. 24-Annular solar eclipse, Invisible in Texas.
Feb. 25-Tenus and moon in conjunction.
Feb. 26-Mercury and moon in conjunction.
Mar. 4-Saturn and moon in conjunction.
Mar. 6-Mars and moon in conjunction.
Mar. 8-Neptune and moon in conjunction.
Mar. 10 -Mercury and sun in conjunction.
Mar. 11-Partial lunar eclipse. visible in Texas.
Mar. 21-Spring begins at 5 a.m.
Mar. 21-Uranus and moon in conjunction.
Mar. 22-Jupiter and moon in confunction
Mar. 24-Mercury and moon in conjunction
Mar. 27 -Venus end moon in conjunction.
Apr. 1-Saturn and moon in conjunction.
Apr. 3-Mars and moon in conjunction.
Apr. 4-Neptune and moon in conjunc-
Apr. 7-Mercury turthest west of sun,

Apr. 18-Uranus and moon in conjunction. Apr. 18-Jupiter and moon in conjunction.
Apr. 33 -Mercury and moon in conjunction.
Apr. 26 - Fenus and moon in conjunction. Apr. 28 -Saturn and moon in conjunction.
May 1-Neptune and moon in conjunction.
May 2-Mars and moon in conjunction.
May 15 -Uranuz and moon in conjunction.
May 16 -Jupiter and moon in confunction.
May 17-Mercury and sun in conjunction.
May 25-Mercury and moon in conjunction.
May 26-Saturn and moon in conjunction.
May 27 - Venus and moon in conjunction.
May 2s-Neptune and moon in conjunction.
May $30-$ Mars and moon in conjunction.
June 11- Cranus and moon in conjunction.
June 12-Jupiter and moon in conjunction.
June 13-Saturn and sun in conjunction.
June $2 \underline{2}-S u m m e r$ commences at 1 a.m.
June 25--Saturn and moon in conjunction.
June 25 - Nfercury and moon in conjunction.
June 25 . Neptune and moon in conjunction.
June 26 -Venus and moon in conjunction.
June 27-Mars and moon in conjunction.
July 2-Earih furthest from sun.
July 8-Urarus and moon in conjunction.
July 10-Jupiter and moon in conjunction.
July 16-Mercury and sun in conjunction.
July :0- Siturn and moon In conjunction.
July 1 - Yeptune and sun in conjunction.
July 2e Mercury and moon in conjunction.
July 22-Neptune and moon in confunction.
July 26 Venus and moon in conjunction.
July 26-Mars and moon in conjunction.
Aug. 2 - lranus and sun in opposition.
Aug. 5-Mercury farthest west of sun, $1:{ }^{\circ} 1{ }^{\prime}$
Aug. 5-Tranus and moon in conjuncIIon.
Aug. 6--Jupiter and moon In conjunction
Aug. 10 -Jupiter and sun in opposition.
Aug. 16 -Saturn and moon in conjunction.
Aug. 19 -Neptune and moon in conjunction.
Aug. 20-Total solar eclipse, invisible in Texas.
Aug. 20 -Mercury and moon in conjunction.
Aug. 24-Mars and moon in conjunction.
Aug. $24-V e n u s$ and moon in conjunction.
Aug. 30-Mercury and sun in conjunction.
sept. 1-Uranus and moon in conjunction.
Sept. 2-Jupiter and moon in conjunction.
Sept 4-Partial eclipse of moon, not moticeable in Texas.
Sept. 13-Saturn and moon in conjunotion.
Sept. 16-Neptune and moon in conjunotion.
Sept. $18-$ Venus furthest east of sun, $48^{\circ}$ Mercury and moon in conjunc-
Sept. 20 -Mercury and moon in conjunc-
Sept. 21-MMr:s and moon in conjunction.
Sept. $23-V e n u s$ and moon in conjunction.
Sept. 23 -Autumn begins at 3 p.m.
Sept. 28 -Uranus and moon in conjunc-
Sept. 49-Jupiter and moon in conjunction.
Oet. 10-Saturn and moon in conjunction.
Oct. 18-Neptune and moon in conjunc-
Oct. 15-miorcury furthest east of sun. $24^{\circ} 52 \prime$.
Oct. 20-Mars and moon in conjunction.
Oct. 20-Mercury and moon in conjunction.
Oct. 21--Venus and moon In conjunction.

Oct. 2\%-Greatest brightness of Venus.
Oct. 26-Uranus and moon in conjunction.
Oct. 26-Jupiter and moon in conjunction.
Nov. 7-Transit of Mercury, ending visible in Texas.
Nov. 7-Saturn and moon in conjunction.
Nov. T-Mercury and sun in conjunction.
Nov. 9 -Neptune and moon in conjunction.
Nov. 10-Mercury and moon in conjunction.
Nov. 18-Mars and moon in conjunction.
Nov. 18 -Venus and moon in conjunction.
Nov. s. 2 Uranus and moon in conjunction.
Nov. 23-Jupiter and moon in conjunction.
Nov. 23-Mercury furthest west of sun, $19^{\circ}{ }^{\circ} 2^{\prime}$.
Nov. 27-Venus and sun in conjunction.
Dec. 4-Gaturn and moon in conjunction.
Dec. 6-Neptune and moon in conjunction
Dec. 15-Venus and moon in conjunction.
Dec. 16-Mercury and moon in conjunction.
Dec. 17-Mars and moon in conjunction.
Dec. 9 - Iranus and moon in conjunction.
Dec. $=0$-Jupiter and moon in conjunction.
Dec. 21 -Saturn and sun in opposition.
Dec. 2-Winter begins at 10 a.m.
Dec. 24 -Uranus and sun in conjunction.
Dec. 31 -Saturn and moon in conjunction.

## CHRONOLOGICAL ERAS.

The year 1914 is the latter part of the 78th and the beginning of the 79th year of the independence of Texas; the latter part of the 138th and the beginning of the 139 th year of the independence of the United States; the year 2690 of the olymplads; the year 2574 of the Japanese era; the year 2667 of the founding of Fome raccording to Varro). The year 5675 of the Jewish era begins at sunset, Sept. 20, 1914. The year 1333 of the Mohammedan era begins Nov $19,1914$. The year 1914 is the 6.627 year of the Julian period, Jan. 1, 1914, being the $2.420,134$ th Julian day.

CHRONOLOGICAL CYCLES.
Dominical letter
D
Epact

Solar cycle ................................ 19
Roman indiction ................. 12

## ASTRONOMICAL CONSTANTS.



NEARER FIXED STARS.
In the firat column are given
the distances in terms of the distance from the earth to sun as a unit; in the second column are given the times it takes for light to travel from the star to the earth. light going at the rate of 186.00 miles per second; in the third column are given the times in years it would take a body going 1,000 miles per day to travel from the star to the earth.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 225.000 | 3.6 | 58.000 .000 |
| 61 Cygni .... | 445.090 | 7 | 110.000 .000 |
| Sirius . . . . | 100.cm | 1.7 | $\underline{12000000000}$ |
| B. Cassiopeial | 1.030.(4.6) | 17 | $\pm 50.0000000$ |
| Vega ....... | $1.4 \% 0.01000$ | -3 | $3 t 10.000 .000$ |
| J. Draconis. . | 1.600 .000 | 56 | 400.000 .000 |
| Procyon . . . . | 1.710.010 | $\because 7$ | $4=5.000 .000$ |
| Arcturus .... | 1.800 .0001 | 28 | 4.00 .000 .0400 |
| Pole Star.... | $\underline{3} .800 .000$ | 45 | 700.400 .100 |
| 85 Pegasi ... | 3. 700.1000 | 60 | 9:5.100.000 |
| Capella .... | 4.500,000 | 70 | $1.135 .000,000$ |

STANDARDS OF TIME.
Although standard time. established by agriement in 1583, for convenience of railroads and the general public, is now generally used throughout the United States and Cariada, astronomical time is the official time of Canada and is used by astronomers in their official publications of observations and other scientific data.

Astronomical time, or mean solar time, is reckoned from noon through the twenty-four hours of the day.

Mean local time was used almost universally before the introduction of standard time. This is based upon the time when the sun crosses the meridian and the day begins at midnight.

Standard Time-By this system the United States, extending from 65 degrees to 125 degrees west longitude, is divided into four sections, each of 15 degrees of longitude, exactly equivalent to one hour. $71 / 2$ degrees 30 minutes on each side of a meridian. commencing with the 75 th meridian.

The first or eastern section includes all territory between the Atlantic Coast and an irregular line drawn from Buffalo to Charleston, $S$. C., the latter city being its southernmost point. The second or central section includes all the territory between this eastern line and another irregular line extending from Bismarck. N. D. to the mouth of the Rio Grande. The thirt or mountain section includes $\Delta 11$ the territory between the westerm border of Idaho. Nevada and Arizona. The fourth or Pacific cection tholudes all the territory of
the United States between the boundary of the mountain section and the Pacific Coast. Inside of each of these sections standard time is uniform, and the time of each section differs frum that next to it by exactly one hour.

## TIME DIFFHIRENCE.

When it is 12 o'clock noon at Dallas it is at-
Aden, Arabia
9:00 p. m.
Amsterdam. Holland.... 6:20 p. m.
Athens, Greece ........ 7:35 p.m.
Berlin, Germany ....... 6:54 p. m.
Bombáy, India ......... 10:51 p. m.
Bremen, Germany ...... 6:33 p. m.
Constantinople, Turkey. 7:56 p m.
Copenhagen, Denmark.. 6:50 p. m.
Dublin, Ireland ........ 5:35 p. m.
Hamburg, Germany.... 6:40 p. m.
Havre, France . . ........ 6:00 p. m.
Hongkong, Chira ...... 1:37 a. m.
Honolulu. Hawaii ...... 7:29 a. m.
Liverpool, England..... 5:48 p. m.
London, England ...... 6:00 p. m.
Madrid. Spaín ............ 5:45 p. m.
Manila, P. I. . . . . . . . . . . $2: 04 \mathrm{a}$. m.
Melbourne, Australia... 3:40 a. m.
Paris, France ............ 6:09 p. m.
Rome, Italy . . . . ....... 6:50 p. m.
Stockholm. Sweden..... 7:12 p. m.
St. Petersburg. Russia.. 8:01 p. m.
Vienna, Austilia ....... 7:06 p. m.
Yokohama. Japan ........ 3:19 a. m.
New York ................ 1:00 p. m.
Denver .................. 11:00 a. m.
 Ean Francisco .......... 10:00 a. m.
*Time noted is in the morning of following day.

## ORIGIN OF THE CALENDAR.

A curious point in our modern calendar is the irregularity in the number of days in the different months. We could hardly remember the right lengths if it were not for the familiar rhyme, "Thirty days hath September." In the oldest Roman calendars the months were of tirirty or twenty-nine days earh. But when Jullus Cesar reformtd the calendar of Numa Pompilius he gave them alternating thirty-one and thirty. beginning with January. February was an exception, and was given twen-ty-nine in ordinary and thirty in leap years. After Cesar's death the month Quintilis was remamed Julius in his honor. Some time later Augustus chose the following month. Sextiois. as his own. and called it Augustus. But it had only thirty days. and it was not to be endured that Augustus should be inferior to Julius. So the Emperor took one dav from February, leavine it onlv twenty-eight, and gave it to Augustus. This disturbed Cesar's orderly arrangements, and three months of thirty-one days, viz.., July, August and September, came together. The extra day of the last was, therefore, given to October, and a day taken from November was given to December.

JEWISH CALENDAR, 5674-5675.

| 5674 - 30 |  |
| :---: | :---: |
| sday, Dec. 30, |  |
| hursday, July 1, |  |
|  |  |
| Wednesday, July 28.. ...Sebat |  |
| Friday, Feb |  |
| Wednesday, March 11. . . . Adar |  |
| Thursday. March 12 | Adar |
| Saturday, March 28......Nissan |  |
| Saturday, April | vissa |
| Monday, April 27. |  |
| Sunday, May 31 |  |
|  |  |
|  |  |
|  |  |
| Friday, July 24 |  |
| Sunday, Aug. 23.... |  |
|  |  |
| Monday, Sept. 21..... ... Tishri |  |
| Wednesday, Sept. 30.. ... Tishri |  |
|  |  |
| Monday, Oct. $12 . .$. . ${ }^{\text {a }}$. . . Tishr |  |
| Tuesday, Oct. ${ }^{13}$ Wednesday, . . . . Tishri |  |
|  |  |
| Thursday nov 19....... |  |
| Sunday, Dec. 13 |  |
| Friday, Dec. 18 |  |
| Sunday, Dec. 2 |  |




## EASTER SUNDAY.

Easter is a festival observed in the Christian Church, from early times, in commemoration of the resurrection of Jesus Christ. It corresponds with the Passover of the Jews, which, in the King James Version of the Bible, is called once by the name of Easter (Acts xii, 4). Its ancient title was "The Great Day." Easter is the Sunday which follows the 14 th day of the calendar moon which falls upon or next after the 21st day of March. The following table shows the date of Easter Sunday in each year of the twentieth century:

| 1901. | . April | 71839. | April |  |
| :---: | :---: | :---: | :---: | :---: |
| 190. | . March | 301940. | ch | 24 |
| 1903. | April | 121941. | April | 13 |
| 1904. | April | 31942. | April |  |
| 1905 | April | 231943 | April | 5 |
| 1906. | April | 151944. | April |  |
| 1907 | March | 311945. | April |  |
| 190 | April | 191946. | April | 21 |
| 1909. | April | 111947. | Apr |  |
| 1910. | March | 271948. | March |  |
| 1911 | April | 161949. | ril | 17 |
| 1912 | Apri | 71950. | ril |  |
| 1913 | March | 231951. | March |  |
| 1914. | Apri] | 121952. | . April | 13 |
| 1915. | April | 41953. | . April |  |
| 1916. | April | 231954. | April | 18 |
| 1917. | April | 81955. | April | 10 |
| 1918. | March | 311956. | . April |  |
| 1919. | April | 201957. | April | 1 |
| 1920. | April | 41958. |  |  |
| 1921 | March | 271959. | March | 29 |
| 1922. | April | $1619 \mathrm{t}^{\circ} \mathrm{O}$. | Aprll | 7 |
| 1923. | April | 11961. | Aprl |  |
|  | April | 201962. | . April | 22 |
|  | April | 121963. | April | 14 |
| 19 | April | 41964 | March | 9 |
|  | April | 171965. | . April | 18 |
| 19 | April | 81966. | April | 10 |
| 1929 | March | 311967. | . March | 26 |
| 1930. | April | 201968. | April | 14 |
| 1931 | April | 51969. | Apr |  |
| 1932. | March | 271970. | . March | 29 |
| 1933 | April | 161971. | April |  |
|  | April | 11972. | April |  |
| 1935 | April | 211973. | April | 22 |
| 193 | April | 121974. | April | 14 |
| 19 | March | 281975. | March | 30 |
| 1938. | April | 171976. | Aprll |  |


| 19 | A | 101989. | ch |  |
| :---: | :---: | :---: | :---: | :---: |
| 1978 | March | 261990. | April |  |
| 1979 | April | 151991. | March | 3 |
| 1980 | April | 61992. | April |  |
| 1981 | April | 191993. | April | 硡 |
| 1982 | April | 111994. | April |  |
| 1983 | April | 31995. | April | 16 |
| 1984 | Anril | 221996. | April |  |
| 1885 | April | 71997. | March | 30 |
| 1986 | Apry | 71998. | April | 12 |
| 1987 | April | 191999. | April |  |
| 1988. | April | 32000. | , Apri] | 23 |

## SOLAR SYSTEM.

| Fromsun, |  |
| :--- | ---: |
| millions, | Diameter, |
| of miles. | miles. |

Sun ........... .........866,400
Mercury .... $36.0 \ldots . . .$.
Venus ....... 67.2.......... 7,700

| Earth..... | $92.8 \ldots . .$. |
| :--- | ---: |
| Mars | 7,819 |

Jupiter $\cdots \cdots$...... $141.5 \ldots . .$.
Jupiter ...... 483.3........ 86,500

Saturn ....... 886.0.......... 71,000
Uranus . . . . . 1,781.9........ 31,900
Neptune . . ....2,791.6........ 34,800
Note-The astronomical part of the Texas Almanac is based on the American Ephemeris and Nautical Almanac, published officially by the United States Naval Observatory and has been expressly calculated for The News at the University of Texas.

## THE EARTH'S ATMOSPHERE.

The earth's sensible atmosphere is generally supposed to extend some forty miles in height, probably further, but becoming at only a few miles from the surface of too great a tenuity to support life. The condition and motions of this aerial ocean play a most important part in the determination of clfmate, modifying, by absorbing, the otherwise intense heat of the sun, and, when laden with clouds, hindering the earth from radiating its acquired heat into space.-Whitaker.

## A READY REFERENCE CALENDAR.

For ascertaining any day of the week for any given time within 200 years from the introduction of the New StyIe. 1752 to 1952 , inciusive.

YEARS 1753 TO 1952



Note-To ascertain any day of the week, first look in the table for the year required and under the months are figures which refer to the corresponding figures at the heads of the columns of days below. For example: To know on what day of the week July 4 was in the year 1895 , in the table of years look for 1895 , and in a parallel line, under July, is figure 1, which directs to column 1 , in which it will be seen that July 4 falls on Thursday.
*1752 same as 1772 from Jan. 1 to Sept. 2. From Sept. 14 to Dec. 31 same as 1780 (Sept. 3-13 were omitted).-From Whitaker's London Almanack, with some revisions.

## DEPARTMENTS AND OFFICERS UNITED STATES GOVERNMENT

The United States Government entered its 126th year on Sept. 13, 1913. The Declaration of Independence was signed July 4,1876 , and the present Constitution, providing for three departments of government-execu. tive, Jegislative and judiciary-was ratificd by all Colonies except Rhode Island on Sept. 13 , 1788 . Whode lshand entered the Union in 1790 . Since the date of ratification but seventeen amendments have been adopted.

## EXECUTIVE DEPARTMENT

FEDERAL GOVEREMENT
President - Woodrow Wilson, New Jersey; salary $\$ 75,000$ per annum.

Vice President-Thomas R. Marshall, Indiana; salary $\$ 12,000$ per annum.

## Presinjent's Cahinet.

Secretary of State-William Jennings Bryan, Nebraska.

Secretary of Treasury-William Gibbs McAdoo, New York.

Secretary of War-Linfly Mills Garrison, New Jersey.

Attorney General-James C. McReynolds, Tennessee.

Postmaster General-Albert Sidney Burleson, Texas.
Secretary of Navy-Joseph Daniels, North Carolina.

Secretary of Interior-Franklin Knigtt Lane, California.

Secretary of Agriculture-David Franklin Houston, Missouri.

Secretary of Commerce-William Cox Redfield, New York.

Secretary of Labor-William B. Wilson, Pennsylvania.
(Salary of Cabinet officers \$12,000 per annum.)

Secretary to the President-Joseph P. Tumulty; salary $\$ 7,500$ per annum.

## SENATE AND HOCSE

OF REPRESENTATIVES
President of the United States Senate-Vice President Thomas R. Marshall.

President Pro Tempore-James P. Clarke, Arkanras.

Chaplain of the Senate-Rev. Forest Prettyman, District of Columbia.

Secretary of the Senate-James Marvin Baker, South Carolina.

Speaker of the House of Repre-sentatives-Champ Clark, Missouri.

Chaplain of the House-Rev. N. H. Couden, District of Columbia.

Clerk of the House-South Trimble, District of Columbia.

Number of United States Senators, Sixty-Third Congress- 96 .

Number of Representatives, Six-ty-Third Congress-435.

Term of United States SenatorsSix Years.

Ifrm of Representatives--Two years.

Salary of United States Senators and Representatives- $\$ 7,500$ per annum.

Salary of the Speaker of the House- $\$ 12,000$ per annum.

Senators and Representatives receive 20 c per mile for traveling to and from the seat of government.

## TEXAS SENATORS.

Senior Senator-Charles A. Culberson. age 58 . He was elected in 1899, re-elected in 1905 and 1911. Committee assignments in the Six-ty-Third Congress: Chairman of the Jidiciary Committee, Appropriations, Coast and Insular Surveys, Examinations of Civil Service. Public Buildings and Grounds, Public Health and National Quarantine.

Junior Senator-Morris Sheppard. age 38. He was elected in 1913. Committee Assignments, SixtyThird Congress: Commerce, Agriculture, Immigration, Irrigation, Census, Coast Defenses, Dxpenditures in Department of Agriculture (chairman), Transportation Routes to Seaboard.

## TEXAS REPRESENTATIVES.

First District-Horace W. Vaughan of Texarkana. Elected to the 63 d Congress. District comprises 11 counties: Bowie, Camp, Cass, Delta, Franklin, Lamar, Marion, Morris, Red River, Titus.

Second District-Martin Dies of Beaumont. Elected to the 61st, 62 d and 63 d Congresses. District comprises 14 counties: Angelina, Cherokee, Hardin, Harrison, Jasper, Jefrerson, Nacogdoches, Newton, Orange, Panola, Sabine, San Augustine, Shelby, Tyler.

Third District-James Young of Kaufman. Elected to the 62 d and 6 d Congresses. District comprises 8 counties: Gregg, Henderson, Kaufman, Rusk, Smith, Upshur, Van Zandt. Wood.

Fourth District-Sam Rayburn of Bonham. Elected to the 63 d Congress. District comprises 5 counties: Collin, Fannin, Grayson, Hunt, Rains.

Fifth District-Jack Beall of Waxahachie. Elected to the 58 th, $59 \mathrm{th}, 60 \mathrm{~h}, 61 \mathrm{st}, 62 \mathrm{~d}$ and 63 d Congresses. District comprises 5 coun-
ties: Bosque, Dallas, Ellis, Hill, Rockwall.

Sixth District-Rufus Hardy of Corsicana. Elected to the 60th, B1st. 62 d and 63 d Congresses. District comprises 6 counties: Brazos, Freestone, Limestone, Milam; Navarro, Robertson.

Seventh District-Alexander W. Gregg of Palestine. Elected to the 69th, 60 th, $61 \mathrm{st}, 62 \mathrm{~d}$ and 63 d Congresses. District comprises 8 counties: Anderson, Chambers, Galveston, Houston, Liberty, Polk, San Jacinto, Trinity.

Eighth District-Joe H. Eagle of Houston. Elected to the 63d Congress. District comprises 8 counties: Austin, Fort Bend, Grimes, Harris, Leon, Madison, Montgomery, Walker. Waller.

Ninth District-George F. Burgess of Gonzales. Elected to 57 th, $68 \mathrm{th}, 59 \mathrm{th}, 60 \mathrm{th}, 61 \mathrm{st}, 62 \mathrm{~d}$ and 63 d Congresses. District comprises 16 counties: Aransas, Bee, Brazoria, Calhoun. Colorado, DeWitt, Fayette, Gollad, Gonzales, Jackson, Karnes, Lavaca, Matagorda, Refugio. Victoria, Wharton.

Tenth District-John P. Buchanan of Brenham. Elected to the 63d Congress. District comprises 8 counties: Bastrop; Burleson, Caldwell, Hays, Lee, Travis, Washington, Williamson.

Eleventh District-Robert $L_{\text {. }}$ Henry of Waco. Elected to the $55 \mathrm{th}, 56 \mathrm{th}, 57 \mathrm{th}, 58 \mathrm{th}, 59 \mathrm{th}, 60 \mathrm{th}$, $61 s t, 62 d$ and 63d Congresses. District comprises 5 counties: Bell, Coryell, Falls, Hamilton, McLennan.

Twelfth District-Oscar Callaway of Comanche. Elected to the 62d and 63d Congresses. District comprises 7 counties: Comanche, Erath, Hood, Johnson, Parker, Somervell, Tarrant.

Thirteenth District-John H. Stevens of Vernon. Elected to the $55 \mathrm{th}, 56 \mathrm{th}, 57 \mathrm{th}, 58 \mathrm{th}, 59 \mathrm{th}$, 60 th , 61 st, 62 d and 63 d Congresses. District comprises 48 counties: Archer, Armstrong, Bailey, Baylor, Briscoe, Carson, Castro, Childress, Clay, Collingsworth, Cooke, Cottle, Dallam, Deaf Smith, Denton, Dickens, Donley. Floyd, Foard, Gray, Hall, Hansford, Hardeman, Hartley, Hemphill, Hutchincon, Jack, Knox, Lamb, Lipscomb, Montague. Moore. Motley, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher, Throckmorton, Wheeler, Wichita, Wilbarger, Wise, Young. Fourteenth District-James L. Slayden of San Antonio. Elected to the $58 \mathrm{th}, 59 \mathrm{th}, 60 \mathrm{th}, 61 \mathrm{st}$, 62 d and $63 d$ Congresses. District comprises 16 counties: Bandera, Bexar, Blanco, Brown, Burnet, Coleman, Comal, Gillespie, Kendall. Kerr, Lampasas, Llano, McCulloch, Macon, Mills, San Saba.

Fifteenth District-John N. Gar-
ner of Uvalde. Elected to the 58th, $59 \mathrm{th}, 60 \mathrm{th}, 61 \mathrm{st}, 62 \mathrm{~d}$ and 63 d Con gresses. District comprises 25 counties: Atascosa, Cameron, Brooks, Dimmit, Duval, Frio, Guadalupe, Hidalgo. Jim Wells, Kinney, La Salle. Live Oak, Maverick. McMullen, Medina, Nueces, San Patricio, Starr, Uvalde, Val Verde, Webb, Willacy, Wllson, Zapata, Zavalia.

Sixteenth District-William R. Smith of Colorado. Elected to the $58 \mathrm{th}, 59 \mathrm{th}, 60 \mathrm{th}, 61 \mathrm{st}$, 62 d and 63 d Congresses. District comprises 58 counties: Andrews, Borden, Brewster, Callahan. Cochran, Coke, Concho, Crane, Crockett, Crosby, Culberson, Dawson, Eastland, Ector, Edwards, El Paso, Fisher, Gaines, Garza, Glasscock, Haskell, Hockley, Howard, Irion. Jeff Davis, Jones, Kent, Kimble, King, Loving, Lubbock, Lynn, Martin, Menard, Midland, Mitchell, Nolan, Palo Pinto, Pecos, Presidio, Reagan, Reeves, Runnels, Schleicher, Scurry, Shackelford, Stephens, Sterling, Stonewall, Sutton, Taylor, Terrell, Terry, Tom Green, Upton, Ward. Winkjer, Yoakum.

Congressmen at Large-Hatton W. Sumners of Dallas and Daniel E. Garrett of Houston.

## FEDERAL JUDICIARY; <br> NAMES OF JUDGES

## The Supreme Court.

Chief Justice-Edward Douglas White, appointed to the Supreme bench from Louisiana in 1894, made Chief Justice in 1910.

Associate Justices-Joseph McKenna, appointed from California in 1897; Oliver Wendel Holmes, appointed from Massachusetts in 1902; William R. Day, appointed from Ohio in 1903: Horace Harmon Burton, appointed from Tennessee in 1909; Charles E. Hughes, appointed from New York in 1910; Willis Vandevanter, appointed from Wyoming in 1910; Joseph R. Lamar, appointed from Georgia in 1910; Mahlon Pitney, appointed from New Jersey in 1912.

Court of Commerce.
Judges-Martin A. Knapp, term of office five years; William $H$. Hunt, term of office four years: John Emmett Carland, term of office three years, Julian W. Mack. term of office two years.
The Court of Commerce was established by legislative act in 1910, terms of office to lap, a full term being five years. After the impeachment of Judge Archibald Congress reduced the court's membership to four.

Court of Appenl.
Under a law, effective Jan. 1 , 1912, the Circuit Courts of the United States are abolished, the District Courts taking jurisdiction
of such cases as were formerly tried in the Circuit Courts. The Judges of the former Circuit Courts, who were also Judges of the Circuit Court of Appeals, become Circuit Court of Appeals Judges only.

There are nine Circuit Courts of Appeal, each presided over by three Judges, exclusive of the Justice of the Supreme Court assigned to that circuit. Texas is in the Fifth Judicial Circuit, which embraces Texas, Louisiana, Mississippi, Alabama, Georgia and FlorIda. The Judges of the Fifth Circuit are David P. Shelby of Louislana, Don A. Pardee of Georgia and Andrew P. McCormick of Texas. Associate Justice Lamar of the Supreme Court has been as signed to the Fifth Judicial District.

## Court of Claims.

Chief Justice Stanton J. Peelle of Indiana, salary $\$ 6,500$ per annum. Associate Justices Charles B. Howry of Mississippl, Fenton W. Booth of Illinois, George W. Atkins of West Virginia, Samuel S. Barney of Wisconsin. Salary $\$ 6,000$ per annum.

## Digtrict Courts.

Each State has one or more Federal District Courts, presided over by a District Judge and attended by a District Attorney and a United States Marshal. Texas has four United States District Courts, as follows:

Eastern District-Judge, Gordon Russell of Tyler; Attorney, James W. Ownby of Beaumont; Marshal, B. F. Sherrel of Jefferson.

Western District-Judge, Thomas S. Maxey of Austin; Attorney, J. L. Camp of San Antonio; Marshal, J. H. Rodeers of Austin.

Northern District-Judge, Edward R. Meek of Dallas; Attorney, James C. Wilson of Fort Worth; Marshal, William J. McDonald of Quanah.

Southern District-Judge, W. T. Burns of Houston; Attorney, vacancy; Marshal, J. A. Herring.

Salaries-District Judge \$6,000 per annum, District Attorney $\$ 4,000$ per annum, Marshal $\$ 4,000$ per annum.

## MISCELLANEOUS

DEPARTMENTS

## Pontal Savingat Banks

Trustees of Postal Savings Banks -Albert S. Burleson, William D. McAdoo, James C. MeReynolds.

## Smithsonian Institution.

Executive Officers-Chancellor, Edward D. White, Chief Justice of the United States; secretary, Chas. D. Walcott; assistant secretary, in charge of the National Museum,

Interstate Commerce Comminsion. Edward E. Clark of Iowa (chairman) ; Judson C. Clements, Georgia; Charles A. Prouty, Vermont; Charles C. McCord, Kentucky; James S. Harlan, Illinois; secretary, George B. BcGinty. One vi. carcy Nov. 22, 1913.

## Civil Service Commistion.

John A. Mchhenny, president; George R. Wales, chief examiner; John T. Doyle, secretary; Charles M. Galloway, Herman W. Craven

## Burean of American Republics. <br> John Barrett, Francis J. Yanes.

## American National Red Croms.

President, Woodrow Wilson; vice president, Robert $W$. DeForest; secretary, Charles I. Magee; treasurer, Sherman Allen; National director, Earnest P. Bicknell.

Isthmian Canal Commission.
Chief, Capt. F. C. Boggs, Corps of Engineers, U. S. A.; Commissioners (on the Isthmus), Lieut. Col. George W. Goethals, Culebra; Lieut. Col. F. H. Hodges, Culebra; Major D. D. Gaillard, Empire; Major W. L. Silbert, Gatun; H. H. Roesseau, Culebra; R. L. Metcalf, Ancon; Col. William C. Gorgas, Ancon; Secretary, Joseph C. Bishop, Ancon.

## Philippine Ialands Commission.

(Headquarters, Manila.)
President and Governor General. W. Cameron Forbes; Vice Governor, Newton W. Gilbert; Dean C. Worcester, Jose R de Luzuriaga, Gregorio Araneta, Rafael Palma, Juan Sumulong, Frank A. Branagan, Charles B. Ellott; executive secretary, Frank W. Carpenter.

## NUMBER OF CONGRESSMEN.

There are 435 members of the lower house of Congress. The apportionment of Congressmen among States, according to the census of 1910, is as follows:

| STATE- | 1910 | 1900 | 1890 |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Total under appor } \\ & \text { tionment act. . } \end{aligned}$ | 435 | 386 | 356 |
| Assigned to new States after apportionment.\| |  | 5 | 1 |
| Alabama | 10 | 9 | 9 |
| Arizona | 1 |  |  |
| Arkansas | 7 | 7 | 6 |
| California | 11 | 8 | 7 |
| Colorado | 4 | 3 | 2 |
| Connecticut | 5 | 5 | 4 |
| Delaware | 1 | 1 | 1 |
| Florida | 4 | 3 | 2 |
| Georgia | 12 | 11 | 11 |
| Idaho | 2 | 1 | 1 |
| Hlinois | 0 | 25 | 22 |
| Indiana | 13 | 13 | 13 |
| Iowa | 11 | 11 | 11 |
| Kansas | 8 | 8 | 8 |
| Kentucky | 11 | 11 | 11 |
| Louisiana | 8 | 7 | 6 |
| Maine ... | 4 | 4 | 4 |
| Maryland .i. | ${ }_{18}^{8}$ | ${ }_{14}^{6}$ | ${ }_{4}^{4}$ |
| Massachusetts | 116 | 14 | 13 |


| STATE- | 1910 | 1900 | 1890 |
| :---: | :---: | :---: | :---: |
| Minnesota | 10 | 9 |  |
| Mississlppi | 8 | 16 | 5 |
| Missourl | 16 | 16 | 1 |
| Nebraska | 6 | , | 8 |
| Nevada |  |  |  |
| New Hampshir | 12 | 2 | 2 |
| New Jersey. | 12 | 10 |  |
| New Mextco. | 1 |  |  |
| New York. | 43 | 37 | 4 |
| North Carolina | 10 | 10 | 9 |
| North Dakota. | 22 | 21 | 21 |
| Oklahoma |  | 5 |  |
| Oregon | 3 | 2 | 2 |
| Pennsylvania | 36 |  |  |
| Rhode Island. |  | 2 | 2 |
| South Carolina | 7 | 2 | 2 |
| Tennessee | 10 | 10 | 10 |
| Texas | 18 | 16 |  |
| Utah | 2 | 1 | 1 |
| Vermont | 2 | 2 |  |
| Virginia | 10 | 10 | 10 |
| Washington |  |  |  |
| West Virginia. | 11 | 11 | $\stackrel{4}{10}$ |
| Wroming | 1 | 1 | 1 |

## ARMY AND NAVY OF THE UNITED STATES

The law provides that the regular army of the United States shall not have an enlisted strength exceeding 100.000 men. At the present time 84,876 snli.sted men in the various branches of service is as follows: Fifteen regiments of cavalry, 765 officers and 13,823 enlisted men; six regiments of field artillery, 252 officers and 5,417 enlisted men; a coast artillery corps, 170 companies, 715 officers and 18 ,471 enlisted men; thirty regiments of infantry, 1,530 officers and 30 .341 enlisted men; three battalions of engineers, 1,942 enlisted men, commanded by officers detailed from the corps of engineers; the Porto Rico Regiment of Infantry, 32 officers and 591 enlisted men; staff corps, service school detachments, Milltary Academy, Indian scouts, recruits, etc., 7 officers and 8,412 enlisted men, and a provisional force of 52 companies of native scouts in the Philippines, 180 officers and 5,732 enlisted men. The total number of commissioned officers, staff and line on the active list is 4,781 (including 127 First Lieutenants Medical Reserve Corps on active duty, 60 dental surgeons and 244 additional and detached line officers), and the total enlisted strength, staff and line, is 81,547 , exclusive of the provisional force and the hospital corps.

## Enlistment Law.

The army act of 1912 prescribes a seven years' term of enlistment, the first four years with the colors Digitized for FRASER
and the last three years in the roserve without pay. Age of first enlistment 18 to 35 years.

The monthly pay during the first enlistment ranges from $\$ 15$ to $\$ 18$ for privates and for noncommissioned officers from $\$ 21$ to $\$ 75$, according to rank and branch of service. Additional pay from $\$ 1$ to $\$ 4$ per month for continuous service is allowed during each enlistment period. Sharpshooters and marksmen receive an additional allowance of $\$ 2$ to $\$ 5$ per month. Enlisted men may retire after thirty years' service on threefourths pay of their grade and an additional $\$ 15.75$ per month for clothing, etc. After two years of service an enlisted man may take the competitive examination for a commission as Second Lieutenant.

## United States Militia.

The militia of the United States consists of 122,207 men and officers in the organized National Cuard and 16,127.35: unorganized militia, or men of military age.

## UNITED STATES NAVY.

The United States Navy consists of the following vessels: Firstclass battleships, 38 ; armored cruisers, 12; armored ram, 1; sin-gle-turret harbor defense monitors, 4; double-turret monitors, 6; protected cruisers, 22; unprotected crulsers, 3 ; scout cruisers, 3 ; gunboats, 13; light draught gunboats, 3; composite gunboats, 8 ; training ship (Naval Academy), sheathed. 1 ; training ships, 2; training brigantline, 1 ; special class (Dolphin, Vesuvius), 2; gunboats under 500 tons, 12; torpedo boat destroyers, 56; steel torpedo boats, 28; submárine. torpedo boats, 49 ; iron cruising vessels, steam, 3 ; wooden cruising vessels, steam, 9; wooden sailing vessels, 7 ; tugs, 45 ; auxillary eruisers, 5 ; converted yachts, 17 ; colliers, 25 ; transports and supply ships, 15; hospital ship. 1 ; receiving ships, 6; prison ships, 4; total, 399.

## Nary Enlistments and Pay.

The enlisted strength of the United States Navy approximates 48,000, the law allowing 51,500 .

Warrant officers (boatswains, gunners, carpenters, sailmakers, pharmacists, machinists and pay clerks) are paid from $\$ 1,125$ to $\$ 2,250$ a year.

Commandants' clerks receive from $\$ 1,000$ to $\$ 1,800$ a year.

Petty officers (masters at arms, boatswains, mates, gunners' mates, gun captains, quartermasters, machinists, hospital stewards, yeomen, bandmasters, first musicians, coxswains, electricians, bollermakers, coppersmiths, blacksmiths, plumbers and fitters, sallmakers' mates, carpenters' mates, oilers,
printers, painters, water tenders and hospital apprentices (first class) receive from $\$ 396$ to $\$ 924$ a year.

The pay of first-class seamen per month is $\$ 26$, seamen gunners $\$ 28$, firemen (first class) \$38, musicians (first class) $\$ 34$.

The pay of second-class seamen per month is: Ordinary seamen $\$ 21$, firemen (second class) $\$ 33$; shipwrights \$27, musicians (second class) $\$ 33$.

The pay of third-class seamen per month is: Landsmen (for training) $\$ 17$, coal passers \$24, apprentices (third class) $\$ 10$.

## GROWTH IN AREA OF THE UNITED STATES

In 1790 Continental United States contained an area of 892,155 square miles. It now has an area of 3,026,789 square miles. Following is a statement of accessions to the territory of the United States, dates of purchase or cession and area acquired:

| Accession-- | $\begin{aligned} & \text { Gross area } \\ & \text { in square } \\ & \text { imiles. } \end{aligned}$ |
| :---: | :---: |
| Continental United States. | $\because 226.783$ |
| Area of U. S. in 1790* | $8: 135$ |
| Louisiana Purchase. 1Sts | 837,487 |
| Florida. 1819 | 58,606 |
| Territory gained through treaty with Spain, iS1!..... | 13.435 |
| Texas. 1St5........ | 389.166 |
| Oregon, 1816 | 286, -41 |
| Mexican cession. 1848. | 529,189 |
| Gadsden purchase, 18:3. | 29,670 |

## Outlying Possessions.

| Accession ${ }^{\text {a }}$ | ross area in square miles. |
| :---: | :---: |
| Outlying possessions. | 716,517 |
| Alaska, 1867. | 510,884 |
| Hawaii. 18:8. | 6.449 |
| Philippine Islands, | 115.026 |
| Porto Rico, 1899. | 3,435 |
| Guam. 1809. | 210 |
| Samoa, 1:00. | 77 |
| Panoma Canal Zone. 1!0t | 430 |

*Includes the drainage basin of the Red River of the north, not a part of any acquisition, but previously considered a part of the Louisiana Purchase.

## UNCLE SAM'S SURPLUS.

Uncle Sam closed the fiscal year 1913 with a surplus of $\$ 40,983,229$, representing that excess of receipts over expenditures, exclusive of Panama Canal and public debt transactions. This exceeds last year's surplus by $\$ 3,750,000$. The Panama Canal expenditures and public debt transactions, however, wiped out the surplus of ordinary receipts over ordinary expenditures and created a deficit for the year of $\$ 2,149,000$.

Total receipts for the fiscal year amounted to $\$ 723,782,981$, while the Digitized forprdinary disbursements were $\$ 683$,-

699,692. Corporation taxes ylelded the Government $\$ 34.948 .870$, or $\$ 5,365,766$ more than during the fiscal year 1912. Custom recelpts for the fiscal year reached \$318,142,000 , an increase of nearly $\$ 7,000,000$ over the previous year.

The record drinking and smoking of the American people during the fiscal year ending June 30 , 1913, brought the Federal Government the enormous total of \$309.478,000 in internal revenue receipts, Which was $\$ 6,500,000$ greater than in 1919.


## TEXAS STATE GOVERNMENT; DEPARTMENT ORGANIZATIONS

The form of government adopted by Texas is similar to that of other States in the Union as regards its division into executive, legislative and Judicial departments. In many other respects it has features peculiarly adapted to conditions existing in the Southwest. Texas was admitted to the Union in 1846. Previous to that date it was an independent nation for a period of ten years. Owning its own lands, it reserved the right of ownership after annexation, also the right to be divided into five separate States upon the vote of its own citizens. A large area of State lands was set apart as an inheritance for the school children. The question of division is seldom seriously discussed.

## BRIEF HISTORICAL <br> SKET'CH OF THXAS

Texas has owed allegiance to six Governments and has been under as many flags. There have waved over Texas territory in token of soverelgnty the fleur-de-lis of France, the royal banner of Spain, the flas of the Mexican Republic, the Lone Star flag of the Republic of Texas, the Stars and Stripes of the American Union and for four years the Stars and Bars of the Southern Confederacy. Her history has been unique and romantic and dates back almost to the inception of the colonies on the Atlantic Coast.

## Early Explorations.

Spanish explorers salled along the rexas coast as early as 1519 and penetrated the interior in 1535 , claiming the territory for the Spanish crown.

Beginning with Coronado in 1540 Texas was invaded by parties from Mexico.

In 1685, three years after his discovery of the mouth of the Mis. sissippl, LaSalle made an untiappy effort to establish a colony on Texas soil in behalf of the French King. It was his intention of settling along the banks of the Mississippi, but through an error of reckoning landed on the west shore of Matagorda Bay. On the banks of the Lavaca he established the first Luropean colony in Texas, erecting Fort St. Louis. The colony perished through treachery of his men and for other reasons.

Capt. DeLeon was ordered by the Spanish King to drive out all other European colonists and invaded Texas for that purpose, but arrived after LaSalle's colony had perished. In 1690 Capt. DeLeon established a Spanish mission, but this was abandoned in 1694. It was not until 1715 that Spain, becoming alarmed at the activities of the French, took active measures to protect her interests in the Southwest

Following the purchase of the Loulstinna territory by the United

States, there was considerable activity on the part of filibustering parties, who believed that the purchase included Texas, but in 1819 the United States Government recognized Spain's elaims to the territory. The treaty fixed the boundary at the Sabine River.

Hextean Independence.
In 1824 Mexico achieved independence from Spain and established a republican form of government. Prior to this, Moses Austin began negotiations to colonize Texas, but died in 1821 , his son, Stephen F. Austin, taking up the work, bringing many families into the country.

## Rebellion of Texas.

In 1830 the usurping Mexjean Governor, Bustamente, prohibited further immigration into Texas from the United States. Previous to this the colonists had assisted Santa Anna in establishing what was purported to be a constitutional government, and they continued their efforts to observe the principles of this government until 1836, When, on March 2, they declared their independence.

On March 6, 1836, the Alamo fell and Bowie, Crockett and 181 men perished under conditions as heroic as ever recorded in history. On March 27 Col. Fannin was captured together with his command of 444 men, of which number Santa Anna butchered 330 at Goliad. On April 21 Gen. Sam Houston, with a small force, captured Santa Anna and scattered his army at San Jacinto, winning the independence of Texas. The Mexican Government, however, did not relinquish its claim to Texas until 1848, following a war with the United States. Texas was admitted to the Union in 1846, having made progress as an independent Nation for a period of ten years.

In the war between the States Texas joined forces with the Confederacy. Following reconstruction Texas has made exceptional progress in population and in the development of its many natural resources.

## EXECUTIVE DEPARTMENT TEXAS GOVERNMENT

## Electife Officers.

(Term of office two years, expiring January, 1915.)

Governor-Oscar B. Colquitt, salary $\$ 4,000$ per annum.

Lieutenant Governor-Will H. Mayes, salary $\$ 5$ per diem while Legislature is in session.

Attorney General-B. F. Looney, salary $\$ 4,000$ per annum.

Controller-W. P. Lane, salary $\$ 2,500$ per annum.

State Treasurer-J. M. Edwards, salary $\$ 2,500$ per annum.

Superintendent of Public Instruc-tion-W. F. Doughty, salary $\$ 2,500$ per annum.

Commissioner of the General Land Office-J. T. Robison, salary $\$ 2,500$ per annum.

Commissioner of AgricultureEd R. Kone, salary $\$ 2,500$ per annum.

Railroad Commissioners (term six years), salary $\$ 4,000$ per an-num-Allison Mayfield, chairma'l, term expires 1916; Earle B. Mayfield, term expires 1914; W. D. Williams, term expires 1918.

## Appointive officers.

Secretary of State-F. C. Weinert, salary $\$ 2,000$ per annum.

Commissioner of Insurance and Banking-W. W. Collier, salary $\$ 5,000$ per annum.

State Tax Commissioner-A. L. Love, salary $\$ 2,500$ per annum. Assistant Attorney General-C. E. Lane, salary $\$ 3,000$ per annum Adjutant General-Henry Hutchings, salary $\$ 2,000$ per annum.

State Revenue Agent-E. B. House, salary \$2,000 per annum.

State Health Officer-Dr. Ralph Steiner, salary $\$ 2,500$ per annum.

State Purchasing Agent-J. H
Elliott, salary $\$ 2,000$ per annum.
Game, Fish and Oyster Commis-sioner-William G. Sterett, salary $\$ 2,500$ per annum. Chief Deputy, Jeff Cox, Austin.

Superintendent of Public Build-ings-A. B. Conley, salary $\$ 1,500$ per annum.

Labor Commissioner--J. S. Starling, salary $\$ 2,000$ per annum.

State Mining Inspector-Isidore Broman, salary $\$ 2,000$ per annum. Pure Food Commissioner-J. S. Abbott, salary $\$ 2,000$ per annum.

State Reclamation EngineerArthur Alvord Stiles, salary $\$ 3,600$ per annum.

State Penitentiary Commission-ers-Sidney J. Bass, W. O. Murray, W. O. Stamps; salary $\$ 3,600$ per annum. Note-Louis W. Tittle contesting appointment of W. O. Stamps.

State Pension CommissionerGeorge W. Kyser, salary $\$ 2,000$ per annum.

Training of Juveniles-W. B. Gray, salary $\$ 1,800$ per annum.

State Fire Marshal-Wallace Inglish.

State Inspector of Masonry-J. B. Nitschke, Austin.
(Note-The superintendent of the State Institution for the Training of Juveniles and all asylum heads receive as part compensation fuel, lights and provisions in amount not to exceed $\$ 500$ per annum.)

## BOARDS AND COMMISSIONS.

## Board of Education.

O. B. Colquitt; Governor; W. P. Lane, Controller; F. C. Weinert, Secretary of State.

## Regents, State Univerity.

Located at Austin and Galveston. S. E. Mezes, president; Clarence Ousley, Tarrant County; George W. Littlefield, Travis County; William H. Burgess, El Paso County; Alex Sanger, Dallas County; W. H. Stark, Orange County; F. W. Cook, Bexar County; Will C. Hogg, Harris County; Dr. A. W. Fly, Galveston County; J. W. Graham, Travis County.

## Regents, Normal Schools.

W. F. Doughty, State Superintendent of Public Instruction; W. J. Crawford, Beaumont; A. C. Goeth, Austin; W. H. Fuqua, Amarillo; Peter Radford, Fort Worth; R. B. Binon, Austin, secretary.

## A. \& M. College.

Located at College Station. Chas. Puryear, president pro tem; E. B. Cushing, Houston: John I. Guion, Ballinger; J. Allen Kyle, Houston; Walton Peteet, Fort Worth; L. J. Hart, San Antonio; R. L. Bennett, Paris; E. H. Astin, Bryan; Thomas E. Battle, Marlin; J. S. Williams, Paris.

College of Industrial Arts.
Located at Denton. W. B. Bizzell, president; James H. Lowry, Fannin County; J. C. Coit, Denton County; Sam P. Harbin, Dallas County; W. D. Adams, Kaufman County; Mrs. Sallie B. Capps, Tarrant County; Mrs. Flora B. Cameron, McLennan County; Miss E. Breckenridge, Bexar County.

John Tarlton College.
Located at Stephenville. John Cage, F. S. White, James Jones, W. D. Bennett, Will Kiker, all of Erath County; R. T. Hume, Palo Pinto County.
North Texas Honpital for the Insane.
Located at Terrell. George E. Kelley, Jeff $C$. Lyon, James $S$. Grinnan, R. G. Goodman, Thomas B. Griffith, A. Andrews, all of Kaufman County.

Southwestern Insane Asylum.
Located at San Antonio. Vories P. Brown, W. C. Rigsby, G. L. Maverick, H. G. Stacke Gus Zal-
manzig, J. F. Carl, all of Bexar County.

State Lunatic Amylnm.
Located at Austin. W. H. Folts. F. J. Rowzee, William F. Wolf, all of Travis County; J. R. Kubena, Fayette County; Carl Nelson, Williamson County.

Indumtrial School for Girls.
Patrick Henry, Fort Worth; Mrs. Edward Rotan, Waco; Mrs. J. W. Galbreath, Fort Worth.

Confederate Women'* Home.
Located at Austin. W. R. Hamby, Joseph W. Cloud, T. H. Davis, David Harrell, Wilbur P. Allen and John A. Chiles, all of Travis County.

Institute for the Blind.
Located at Austin. William Trenckmann, F. G. Reynolds, E. J. Bryne, C. D. Johns and M. T. Fowler, all of Travis County; Ed Green, Hays County.

Deaf and Dumb Institute.
Located at Austin. Joe Koen, S. F. Nolen, Morritz Silver, Ike D. White and R. W. Finley, all of Travis County; T. D. Vaughn, Burnet County.

Confederate Bome.
Iocated at Austin. W. C. Walsh, W. R. Davis, H. G. Askew, Travis County; William Owens, Bastrop County; Houston Haynie, Kaurman County; R. O. Harris, San Saba County.

Epileptic Colony:
Located at Abilene. John Boyer, Ed V. Muir, E. E. Hall, H. B. Cook, George Miller, all of Taylor County; B. L. Russell, Callahan County.

## State Orphans' Home.

Located at Corsicana. John $H$. Rice, Aaron Ferguson, R. J. Saunders, William Conner, W. B. Parker, R. S. Neblett and Mat Young. all of Navarro County.

## Deaf, Dumb and Blind Ingtitnte.

 (Colored).Located at Austin. Rev. Joshua Phipps, W. D. Miller, Ed Schultze, E. Cartledge, W. M. .Dunson and Sidney F. Grumbles, all of Travis County.

Tubercular Sanitarinm.
Located at Carlsbad. T. J. Clegg, W. B. Pulliam, Charles W. Hobbs and George J. Birde, all of Tom Green County.

## Juvenile Training School.

Located at Denton. Dr. S. P. Brooks, Gen. Felix H. Robertson, M. M. Harris and W. W. Seley, all of McLennan County; Dr. C. C. Homan and D. R. Hall, Coryeli County.

## State Board of Health.

Dr. A. W. Fly, Galveston County; Dr. M. B. Worsham, El Paso County; Dr. K. H. Beall, Tarrant County; Dr. Hugh L. McLaurin, Dallas Comet; Dr. B. F. Calhoun, JefferCombt: Dr
son County; Dr. S. M. Lister, Harris County.

## Industrial Accident Board.

Joseph D. Sayers, Iravis County; W. J. Moran, Tarrant County; O. P. Pyle, Belton.

State Medical Examiners.
Drs. G. L. Baber, Winnsboro; T. J. Crowe, Dallas; W. B. Collins, Lovelady; M. E. Daniel, Honey Grove; G. W. Johnson, San Antonio; H. C. Morrow, Austin; E. B. Osborne, Cleburne; S. L. Scothorn, Dallas. The officers of the board are: Dr. J. H. Evans, president, Palestine; Dr. J. F. Bailey, vice president, Waco; Dr. W. L. Crosthwait, secretary, Waco.

State Dental Examiners.
Drs. T. S. Cartright, Grayson County; C. M. McCauley, Taylor County; A. F. Sonntag, McLennan County; W. F. Scherrer, Harris County; M. H. Biscoe, Tarrant County; W. D. McCarty, Bexar County.

State Nurse Examiners.
Miss Maud Mueller, Bexar County: Miss Mildred Bridges, Tarrant County; Miss Lucy Bronson, Bell County; Miss M. E. Chumley, McLennan County; Miss Clara L. Shackford, Galveston County.

## Board of Pharmacy.

J. A. Weeks, Runnels County; H. V. Schumann, Comal County; H. C. Jackson, Travis County; J. R. Crittendon, Freestone County.

Board of Veterinary Surgeonn.
W. A. Knight, Harris County; C. C. Parker, Tom Green County; $\underset{F}{ }$. G. Cook, Lamar County; S. J. Swift, Travis County; T. W. Watson, Navarro County; J. W. Burby, Bexar County.

## State Quarantine Officers.

A. S. Pollock, Sabine; E. S. McCain, Brownsville; V. E. McFarlands, Eagle Pass; B. H. Carleton, Velasco; J. A. Ramsey, Aransas Pass; T. J. McCamart, El Paso; W. E. Lowrey, Laredo; J. J. McGlasson, Galveston; O. L. Crouch, Port O'Connor.

## State Humane Society.

Mrs. R. L. Pollard, Mrs. T. S. Maxey, Mrs. O. H. Butler, John G. Palm, A. J. Eilers, all of Austin: J. E. Farnsworth, Dallas; Mrs. Presley K. Ewing, Houston; Dr. B. F. Kingsley, San Antonio; Father P. A. Heckman, Temple; Mrs. Genevieve Powers, Victoria.

## Live Stock Sanitary Commission.

W. N. Wadell, Fort Worth; Al McFadden, Victoria; J. W. Johnson, San Angelo.

State Mining Board.
C. N. Avery, Austin, chairman; Isidore J. Broman, Austin, inspector; H. C. Koehler, San Antonio; W. K. Gordon, Thurber; N. M. Bullock, Rockdale; A. S. Master, Thurber:

Howard Bland, Taylor; William Win berly, Bridgeport

## Board of Pardon Advisers.

O. C. Kirvin, Mexia; Louis von Haven, Fredericksburg.
Library and Historical Commission.
Mrs. Joseph D. Sayers, Austin; Mrs. Joseph B. Dibrell, Seguin.

Fire Insurance Commission.
S. M. Inglish, State Fire Marshal. Cooke County; A. H. Haynes, Travis County; W. W. Collier, State Commissioner of Insurance and Banking, ex officio chairman.

## Experiment Station Board.

Lieut. Gov. Mayes, president, Brownwood; P. L. Downs, Temple; Charles Rogan, Austin; B. Youngblood, secretary. College Station.

## Honrd of Wnter Engineers.

Prof. J. C Nagle, John Wilson E. B. Gore; W. T. Potter, secretary

## San Jacinto Park Commission.

Joe S. Rice. I. K. P. Gillespie. Mrs. Rosine Ryan, all of Houston.

## Gonzales Park Commission.

R. S. Dilworth, John C. Jones and J. W. Painbolt, all of Gonzales.
Board of Appraisers, School Lands. R. W. Priest. Carthage; L. E. Cowling, Canyon; J. T. Robison, Land Commissioner, ex officio.

## Pilot Commissioners.

Galveston--R. Waverly Smith, Danjel McBride, T. J. Anderson, C. N. Rode, T. L. Cross, George M. Kelley. Port Arthur-G. M. Craig, J. Frank Keith, C. Carthell, B. L. Root. T. H. Robinson. AransasFrank Swenson, R. L. Mercer. J. E. Cotler, Jed P. Brundrett, W. O. Harmon, E. B. Mercer. HoustonF. A. Peden, P. C. Foley, J. S. Bonner, W. S. Cochran, Jack O'Neal. Sabine-Neches Canal-S. W. Levington, Orange; F. H. Farwell, Orange; Eugene Ligon, Harvey Gilbert and Harry Fletcher, all of Jefferson County.

## State Board of Embalming.

George $W$. Loudermilk, Dallas; C. B. Sutherland, Corsicana; C. N. Humason, Lufkin; L. C. Puckett, Waco.

## Public Weighern.

Galveston-K. K. Marrast, C. M. Wolston, J. E. Labusen, O. R. Hoeker. Houston-S. E, Boyd, David Rice, W. C. Crain, W. E. Edmundson.

## Texas Employes' Insurance AssoCi:tion.

H. Baldwin Rice, J. S. Cullinan and John S. Radford, Houston; E. R. Bolton, Waco; Paul Waples. Fort Worth; L. Miller, Orange; W. E. Mosher, Sam T. Morgan and Ed T. Moore, Dallas; Ernest Steves and Gus Giesecke, San Antonio; Eugene Cherry, Sherman. The board is to serve for a term of one yearRAmith their successors are
elected by ballot by the subscribers to the association.

## STATE INSTITUTIONS.

(Charitable and Eleemosynary.)
Southwestern Texas Insane Asylum, San Antonio: Dr. F. S. White, superintendent. Number of inmates for fiscal year 1912-13, 1,117: value of bulldings and grounds, $\$ 1.450,000$ : appropriation for maintenance fiscal year 1913-14, \$263,100.

State Lunatic Asylum, Austin: Dr. John Preston, superintendent. Number of inmates during fiscal year 1912-13, 1.557: appropriation for fiscal year 1913-14, $\$ 358,140$; valne of buildings and grounds. $\$ 100.000$.
North Texas Insane Asylum, Terrell; Dr. George F. Powell, superintendent. Number of inmates during fiscal year 1912-13, $\$ 1,916$, with 3,204 on furioughs; appropriation for maintenance for fiscal year 1913-14, $\$ 348,100$; value of buildings and grounds, $\$ 900,000$.

State school for the Blind, Austin; E. E. Bramlette. superintendent. Number of inmates during fiscal year 1912-13, 252; appropriation for maintenance for fiscal year 1913-14, $\$ 91,880$; value of buildings and grounds, $\$ 250,000$.

Teras School for the Deaf, Austin; Gus Urbantke, superintendent. Number of inmates during fiscal year 1912-13, 462; appropriation for maintenance for fiscal year 191314. $\$ 124,100$; value of buildings and grounds, $\$ 400,000$.

Texas Deaf, Dumb and Blind Institute for Colored Youths, Austin; J. H. Stewart, superintendent. Number of inmates during fiscal year 1912-13, 98; appropriation for maintenance for fiscal year 191314, $\$ 40,430$; value of buildings and greunds, $\$ 88.500$.

Girls' Training School-Provided for by the Thirty-Third Legislature. Not yet established.
State Orphans Home, Corsicana; W. F. Barnett, superintendent. Number of inmates during fiscal year 1912-13, 300; appropriation for maintenance for the fiscal year 1913-14, $\$ 76,260$; value of buildings and grounds, $\$ 150,000$.
State Confederate Home, Austin; A. C. Oliver, superintendent. Number of inmates during the fiscal year 1912-13, 420; appropriation for maintenance for the fiscal year 1913-14, $\$ 96,770$; value of buildings and grounds. \$100.000.

State Epileptic Colony, Abilene; Dr. T. B. Bass, superintendent. Number of inmates during fiscai year 1912-13, 390; appropriation for maintenance for fiscal year 191314. $\$ 96,300$; value of buildings and grounds, $\$ 350,000$.

Confederate Women's Home, Austin; Miss Katie Daffan, super-
intendent. Number of inmates during the fiscal year 1912-13, 50; appropriation for maintenance for fiscal year 1913-14, \$17,005; value of buildings and grounds, $\$ 40,000$.

State Tubercular Sanitarium No. 1, Carisbad; Dr. Bascom Lynn, superintendent. Number of inmates during fiscal year 1912-13, 300 treated during the year; appropria'tion for maintenance for fiscal year 1913-14, $\$ 92.399$; value of buildings and grounds, $\$ 86.000$.

Juvenile Training School for Boys, Gatesville; A. W. Eddins, superintendent. Number of inmates during fiscal year 1912-13, 312; appropriation for maintenance for fiscal year $1913-14, \$ 127,760$; value of buildings and grounds, $\$ 250,000$.
(Note-For educational institutions see section on public education.)

## TEXAS NATIONAL GUARD.

The National Guard consists of three regiments of infantry, one separate battalion, four troons of cavalry, one company of ficld artillery and one company of coast artillery. The Governor of the State is the commander in chief, but the direct command falls to the Adjutant General, who is appointed by the Governor.

## Officers of the Guard.

Gov. O. B. Colquitt, Commander in Chief.

Brig. Gen. Henry Hutchings, Adjutant General.

## Petmonal Staff.

Lleut. Col. Otto Herold, Dallas.
Lient. Col. B. F. Bonner, Houston.

Lieut. Col W. W. Cameron, Waco.

Lieut. Col. F. A. Chapa, San Antonio.

Lieut. Col. E. H. R. Green, Terrell.

Lieut. Col. Abe Gross, Waco.
Lieut. Col. O. C. Guessaz, San Antonio.

Lieut. Col. Dallas J. Mathews, Houston.

Lieut. Col. H. B. Moore. Texas City.

Lieut. Col. John L. Peeler, Austin.

Lieut. Col. Otto Wahrmund, San Antonio.

Lieut. Col. J. Sheb Williams, Paris.

Lleut. Col. F. G. Pettibone, Galveston.

## Commander.

P. C. Townsend, commanding brigade. San Antonio.

## Adjutant General's Department.

ddjutant General, Brig. Gen. Henry Hutehings, Austin.

Assistants:
Col. Edwin R. York, Austin.
Major Phil M. Hunt, Stamford.

Major F. J. Badger, San Antonio.
Inmpector General's Department.
Major Walter G. Lacy, Waco.
Major Allen Puell. San Antonio.
Major E. H. Poach, Dallas.
Judge Advocato General'm Department.
Major Thomas P. Buffington, Anderson.

Major Ingham S. Roberts. Houson.

Capt. F. S. Rogers, Kaufman.
Qnartermaster'm Department.
Assistant Quartermaster General,
Col Emmet E. Walker, Austin.
Quartermasters:
Major Johr L. Sparger, Dallas.
Major Smith C. Pedigo, St. Jo.
Capt. N. P. Houx, Mexia.
Capt. Thomas D. Affleck, Coleman.

Capt. Dan B. Myer, Terrell.
Capt Peter Schramm. Taylor. Capt. W. A. Tew, Austin.
Capt. J. FR. Ricker, Houston.
Second Lieut. G. L. Murray, Austin.

Snbsintence Department.
Major J. Lee Gammon, Waxahachie.

Major Charles A. Davis, Abilene.
Capt. Oliver P. Storm. Dallas.
Capt. Edward B. Williams, Dallas.

Capt. J. E. W. Thomas, Dallas,
Capt. J. II. Zachry, Uvalde.
Capt. F. O. Post, Waco.
First Lieut. E. E. Bruck, Waco.
Second Lieut. H. C. Smith, Austin.

## Fay Department.

Major Asa C. Wilson, Dallas.
Capt. J. L. Lockett, Fort Worth.
Capt. Ethol H. Shields, Navasota.
Capt. R. M. Colquitt, Houston.
Capt. T. J. Bowman, Austin.
Capt. J. L. Little, Kountze.
Capt. L. G. White, Fort Worth.
Orinance Department.
Major O. C. Guessaz, San Antonio.

Capt. J. W. Speight, Waco.
Capt. C. I. Test, Austin.
Capt. David S. Kritser, Amarillo.
Capt. Kenneth W. Read, Decatur.
Capt. C. G. Duff, Hillsboro.
First Lieut. S. D. Ridings, Ama-
rillo.
First Lieut. S. B. Blount, Houston.

## Medical Corpa.

Major Alvin B. Kennedy, Chief Medical Officer, Bonham. Major Thomas V. Fryar, Corsicana.

Major J. L. Short. Houston.
Major Scurry L. Terrell, Dallas. Capt. F. C. Floeckinger, Taylor. Capt. J. M. Loving, Austin.
Capt. H. F. Sterzing. Austin.
Capt. T. R. Burnett Jr., Carroll.
ton.
Capt. J. L, Deason, Cameron.
Cap: W. L. Robinson, Hubbard.
Capt © M. Decherd, Austin.

First Lieut. H. Ji. Levy, Dallas. First Lieut. J. J. Olitilly, Fort Worth.

First Lieut. H. W. Newman, Austin.

First Lieut. R. E. Hughes, Gainesville.

First Lieut. I. L. McGlasson, Galveston.

First Lieut. W. P. Barron, Carmona.

First Lieut. D. H. Lawrence, Galveston.

First Lieut. George B. Calnan, El Paso.

First Lieut. H. O. Sappington, Galveston.

First Lieut, George F. Thomas, Amarillo.

First Lieut. W. E. Lowry, Laredo.

First Lieut. E. W. Loomis, Dallas.

First Lieut. Joseph D. Cohn, Corpus Christi.

First Lieut. Harris McCoach, San Antonio.

First Lieut. W. C. Tenery, Waxahachle.

## Hospital Corps.

Fort Worth detachment, First Lieut. J. J. O'Reilly, commanding. Galveston detachment, First Lieut. I. L. McGlasson, commanding.

## First Cavalry.

Major Churchill Towles, Squadron Commander, Houston.

First Lieut. S. D. Ridings, Assistant I. S. A. P., Amarillo.

First Lieut. Hood Boone, Squadron Adjutant, Navasota.
Second Lieut. Robert $F$. Penn, Squadron Quartermaster, Houston.

## Field Artillery.

Battery A:
Capt. F. A. Logan, Dallas.
First Lieut. A. C. Allen, Dallas.
Junior First Lieut. Sanford A. Stewart Jr., Dallas.

Second Lieutenant, vacancy.

## Coast Artillery.

## First Company:

Capt. A. Baushell, Galveston.
First Lieut. Neil M. Allen, Galveston.

Second Lieut. C. D. Lavallee, Texas City.

## Separate Company Infantry.

First Separate Company, Major E. H. Roach in charge, Dallas.

## Second Iufantry.

Col. Benjamin F. Delamater, commanding, Caldweil.

Lieut. Col. H. P. Jordan, Waco.
Major A. W. Bloor, Austin.
Major Webb Hearne, Beeville.
Major W. E. Jackson, Hillsboro.
Capt. Monroe Chapman, Adjutant, Pearsall.

Capt. J. W. Hawkins, Quartermaster, Austin.

Capt. Forrest Moore, Commissary, Beaumont.

Capt. C. I.. Test, Assistant I. S. A. P., Austin.

First Lieut. C. L. Pool, Battalion Adjutant, Sherman.

First Lieut. L. C. Smoot, Battalion Adjutant, Dallas.

First Lieut. C. M. Easley, Battalion Adjutant, Waco.

Second Lieut. Files Erdington, Battalion Quartermaster and Commander, Hillsboro.

Second Lleut. Adolph Geue, Battalion Quartermaster and Commander, Austin.

Capt. A. A. Wagnon, Chaplain, Cameron.

Third Infantry.
Vacancy Nov 1, 1913.
Lieut. Col, George P. Rains, Marshall.

Major J. F. Nichols, Greenville.
Major John S. Hoover, Houston.
Major Holman Taylor, Fort
Worth.
Capt. H. W. Kinnard, Adjutant, Dallas.

Capt. C. H. Raguet, Quartermaster, Marshall.

Capt. F. I Irwin, Commissary, Terrell.

Capt. J. W. Speight, Assistant I. S. A. P., Waco.

First Lieut. W. J. Hyde, Battalion Adjutant, Houston.

First Lieut. Archie Cates, Battalion Adjutant, Austin.

First Lieut. C. C. Wren, Battalion Adjutant, Houston.

Second Lieut. B. M. Jennings, Battalion Quartermaster and Commander, Timpson.

Second Lieut. T. B. Cox, Battalion Quartermaster and Commander, Goliad.

## Fourth Infantry.

Col. Cecil A. Lyon, commanding, Sherman.

Lieut. Col. C. W. Nimon, Gainesville.

Major J. E. Muchert, Sherman.
Major N. Lapowski, El Paso.
Major C. O. Elliott, Fort Worth.
Capt. Sloan Simpson, Adjutant, Dallas.

Capt. O. C. Ahlers, Quartermaster, Sherman.

Capt. H. E. Stevenson Commissary, El Paso.

Capt. D. S. Kritser, Assistant 1. S. A. P., Amarillo.

First Lieut. J. E. Wiley, Battalion Adjutant, Quanah.
First Lieut. George J. Dwyer, Battalion Adjutant, Dallas.

First Lieut. J. W. Page, Battalion Adjutant, Fort Worth.

Second Lieut. Henry Hutchings Jr., Battalion Quartermaster and Commander, Austin.

## TEXAS RANGERS.

The State of Texas has a State police force which is in command of the Chief Executive, and which is on duty all the time. This Ran-
ger force had its inception in frontier days, and although it is con-, siderably smaller than in the early days, it does effective duty in upholding the law in various sections of the State.

The present organization is composed of three companies, each under the command of a Captain, who is assisted by one Sergeant. Company $A$ is under the command of Capt. J. R. Hughes. This company has eight privates. It is located at Ysleta. Company B, Capt. J. J. Sanders, is located at Del Rio, with eight men. Company $C$ (skeleton company) is located at Austin, Capt Monroe Fox commanding. Captains are paid $\$ 100$ per month, Sergeants $\$ 50$ per month and privates $\$ 40$ per month. Each man is allowed $\$ 1.50$ per day for maintenance. Each member of the force must furnish his own horse and equipment, including a carbine and pistol. The Ranger force does not supplant the regular constabulary, but aids those forces, when necessary, in making arrests and enforcing the law.

Note.-Owing to disturbed political conditions in Mexico, the Ranger force was increased in October, 1911, for the purpose of guarding the border. This was done under the sanction of President Taft.

## TEXAS LEGISI_ATURE

HOUSE AND SENATE
Following the plan of the United States Government and that of older States, Texas, $i_{-}$framing its Constitution, divided its legislative department into two houses, a House of Representatives and a Senate. The State is divided into thirty-one Senatorial and 127 Representative districts. 'There are, however, 142 Representatives, some thickly populated districts having more than one.

The names of State Senators, their residence and counties in each district; the names of Representatives, residence and counties in each district follow:

## Thirty-Third Senate.

District No. 1-Vacancy; Bowie, Cass, Marion and Morris Counties.

District. No. 2--H. I Darwin, Cooper; Delta, Franklin, Hopkins, Red River and Titus Counties.

District No. 3-F. M. Gibson, Bonham; Fannin and Lamar Counties.

District No. 4-S. B. Cowell, Whitesboro; Cooke and Grayson Counties.

District No. 5-EEd Westbrook, Farmersville; Collin, Hunt and Rains Counties.

District No. 6-J. C. McNealus, Dallas; Dallas and Rockwall Counties.

District No. 7-Earl M. Greer, Wills Point; Camp, Smith, Upshur, Van Zandt and Wood Counties.

District No. 8-E. H. Carter, Center: Shelby, Gregg, Harrison, Panola and Rusk Counties.

District No. 9-Robert L. Warren, Terrell; Henderson, Kaufman and Navarro Counties.

District No. $10-\mathrm{W}$. C. Morrow, Hillsboro; Ellis, Hill and Johnson Counties.

District No. 11-H. B. Terrell, West; Falls, McLennan and Milam Counties.

District No. 12-J. R. Astin, Bryan; Brazos, Freestone, Limestone and Robertson Counties.

District No. 13-W. J. Townsend Jr., Lufkin; Anderson, Angelina, Cherokee, Houston and Trinity Counties.

District No. 14-V. A. Collins, Beaumont; Hardin, Jasper, Jefferson, Liberty, Nacogdoches, Newton, Orange, Sabine, San Augustine and Tyler Counties.

District No. 15-C. W. Nugent, Conroe: Grimes, Leon, Madison, Montgomery, Polk, San Jacinto and Walker Counties.

District No. 16-K. H. Bailey, Houston; Fort Bend, Harris and Waller Counties.

District No. 17-W. L. Hall, Wharton; Brazoria, Chambers, Galveston, Matagorda and Wharton Counties.

District No. 18-E. I. Clark, Schulenburg; Austin, Colorado, Fayette and Lavaca Counties.

District No. 19-Quintus U. Watson, Giddings; Bastrop, Burleson, Lee and Washington Counties.

District No. 20-T. H. McGregor, Austin; Burnet, Lampasas, Travis and Williamson Counties.

District No. 21-James A. Harley, Seguin; Blanco, Caldwell, Comal, Gonzales, Guadalupe and Hays Counties.

District No. 22-J. H. Balley, Cuero: Aransas, Atascosa, Bee, Calhoun, DeWitt, Frio, Goliad, Jackson, Karnes, Live Oak, Refugio, Victoria and Wilson Counties.

District No. 23-John G. Willacy Portland; Cameron, Dimmit, Duval, Hidalgo, LaSalle, McMullen, Nueces, San Patricio, Starr, Webb, Zapata, Jim Hogg and Kleberg Counties.

District No. 24-Julius Real, Kerrville; Bandera, Bexar, Gillespie, Kendall, Kerr and Real Counties.

District No. 25 -Claude B. Hudspeth, El Paso; Brewster, Coke, Crockett, Edwards, El Paso, Irion, Jeff Davis, Kimble, Kinney, Mason, Maverick, Medina, Menard, Pecos, Presidio, Reagan, Reeves, Schleicher, Sterling, Sutton, Terrell, Tom Green, Uvalde, Val Verde and Zavalla Counties.

District No, 26-R. P. Conner, Brownwood; Brown, Coleman, Co:
manche, Concho, Erath, Llano, McCulloch, Mills, Runnels and San Saba Counties.

District No. 27-C. W. Taylor, Rogers; Bell, Bosque, Coryell and Hamilton Counties.

District No. 28--H. P. Brelsford, Eastland; Andrews, Borden, Callahan, Crane (un.), Dawson, Eastland, Ector, Ftsher, Gaines, Garza, Glasscock. Haskell, Howard, Jones, Kent, Loving (un.), Lynn, Martin, Midland, Mitchell, Nolan, Palo Pinto, Scurry, Shackelford. Stephens, Stonewall, Taylor, Terry, Upton, Ward, Winkler and Yoakum Counties.

District No. 29-W. A. Johnson, Memphis; Archer, Armstrong, Balley (un.), Baylor, Briscoe, Carson, Castro, Childress, Clay, Cochran (un.), Collingsworth, Cottle, Crosby, Dallam, Deaf Smith, Dickens, Donley, Floyd, Foard, Gray, Hale, Hall, Hansford, Hardeman, Hartley, Hemphill, Hockley (un.), Hutchinson, Jack, King, Knox, Lamb, Lipscomb, Lubbock, Moore, Motley, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher, Throckmorton, Wheeler, Wichita, Wilbarger and Young Counties.

District No. 30-O. S. Lattimore, Fort Worth; Hood, Parker, Somervell and Tarrant Counties.

District No. 31-James R. Wiley, St. Jo; Denton, Montague and Wise Counties.

## Third-Third Hoase.

Chester A. Terrell, San Antonio, Speaker.

District No. 1-L. H. Henry, Texarkana; Bowie ( $x$ ) County.

District No. 2-J. M. Rickerson, Atlanta: Cass (x) County.

District No. 3 ( $f$ )-T. D. Rowell. Jefferson; Bowie (x), Cass (x) and Marion (x) Counties.

District No. 4-J. B. Furrh, Elysian Fields; Harrison (x) County.

District No. 5--S. S. Baker, Carthage; Panola County.

District No. 6-C. L. Stone, Henderson; Rusk County.

District No. 7-A. T. Russell, Nacogdoches: Nacogdoches County.

District No. 8-George F. Oliver, Center: Shelby County.

District No. 9-W. W. King, Bronson; Sabine, Newton and Jasper Counties.

District No. 10-T. L. Foster, San Augustine; San Augustine and Angelina Counties.

District No. 11-F. O. Fuller, Cold Springs: San Jacinto and Polk Counties.

District No. 12-J. M. Rich, Liberty; Hardin. Liberty (x) and Tyler Counties.

District No. 13-S. B. Cooper Jr., Beaumont; Jefferson (x) County.

District No. 14 (f)-E. L. Bruce, Orange; Jefferson (x), Liberty (x) and 9 gratge Counties.

District No. 15 (4)-Place No. 1, John H. Kirby; Place No. 2, August Haxthausen; Place No. 3, E. A. Calvin: Place No. 4, E. R. Brown, all of Houston; Harris County.

District No. 16-John W. Campbell. Galveston; Galveston (x) County.

District No. 17 (f)-Charles $P$. MacGill, Galveston; Galveston (x) and Chambers Counties.

District No. 18-R. T. Mulcahy, Rosenberg: Fort Bend (x) and Waller (x) Counties.

District No. 19-James H. Roach, Blessing; Brazoria and Matagorda Counties.

District No. $20-\mathbf{W}$. L. Hill, Huntsville; Walker and Trinity Counties.

District No. 21-W. E. Neeley, Anderson; Montgomery County.

District No. 22 (f)-J. L. Fountain. Bryan; Grimes (x) and Brazos Counties.

District No. 23-D. C. Dove, Buffalo; Madison and Leon Counties.

District No. 24-Nat Patton, Crockett: Houston County.

District No. 25-Z. Broughton, Palestine; Anderson County.

District No. 26-John B. Long, Rusk; Cherokee County.

District No. 27-D. M. Reedy, Tyler; Smith (x) County.

District No. 28 (f)-A. C. Robbins, Athens; Smith (x) and Henderson Counties.

District No. 29-E. M. Chrestman, Grand Saline; Van Zandt County.

District No. $30-J . W$. Ussery, Winnsboro; Wood and Rains Counties.

District No. 31-J. J. Stephens, Gilmer; Camp and Upshur Counties.

District No. 32-Julius Barrett, Mount Pleasant; Titus and Morris Counties.

District No. 33-W. O. Diffie, Detroit; Red River County.

District No. 34-R. R. Williams, Cumby; Hopkins (x) County.

District No. 35 (f)-J. J. Cox, Cooper; Hopkins (x), Delta and Franklin Counties.

District No. 36-D. W. Dickens, Paris: Lamar (x) County.

District No. 37-John Cunningham, Ravenna; Fannin (x) County. District No. 38 (f)-John M. Raiden, Honey Grove: Lamar (x) and Fannin ( $x$ ) Counties.

District No. $39-E$. F. Mangum, Greenville: Hunt (x) County.

District No. 40 (f)-T. B. Ridgell, Fockwall: Hunt ( $x$ ) and Rockwali Counties.

Distriet No. 41-J. L. Yarbrough; Lavon; Collin (x) County.

District No. 42 (2)-First Place, I. B. Leeves, Sherman; Second Place, J. L Webb, Tioga; Grayson (x) County.

District No. 43 (f)-C. M. Sprad-
iy, Allen: Collin (x) and Grayson c) Counties.

District No. 44 (4)-First Place, jwight Lewelling, Dallas: Second Place. J. W. Parker, Dallas: Third lace, John E. Davis, Mesquite; Pourth Place, W. C. McKamy, Renier: Dallas (x) County.
District No. 45-E. E. Thompson,
Caufman; Kaufman ( $x$ ) County.
District No. 46 -Alvin M. Owsley, Denton: Denton (x) County.
District No. 47 ( $f$ )-T. G. Collins, frand Prairie: Dallas (x) and Gaufman (x) Counties.
District No. 48-G. O. Craven.
Pilot Point; Cooke County
District No. 49-W. O. Nabours.
Montague: Montague County. District No. 50-A. D. Rogers, Decatur; Wise County.

Distrlct No. $51-\mathrm{E} . \mathrm{H}$. Grlndstaft,
Peaster: Parker County.
District No. 52 (3)-First Place, Louis J. Wortham: Second Place, B. B. Paddock: Third Place, Hunter
P. Lane, all of Fort Worth; Tarrant (x) County.

District No. 53-Fred T. Vickers,
Cleburne; Johnson (x) County
District No. 54 (f)-Sam J. Hunt-
er, Fort Worth; Tarrant (x) and Denton ( $x$ ) Countles.

District No. 55-First Place, W. E. Cox, Waxahachie: Second Place, R. L. Sullivan, Italy; Ellis County. District No. 56 -Robert T. Burns, Irene; Hill (x) County. District No. $57-\mathrm{J} . \mathrm{H}$. Woods, Corsicana: Navarro (x) County.

District No. 58 (f)-W. A. Tarver. Corsicana; Freestone and Navarro (x) Counties.

District No. 59 (i)-Charles H.
Mills, Corsicana; Hill (x) and Navarro (x) Counties.

District No. 60-J. J. Vannoy, Tehuacana; Limestone (x) County. District No. 61 (2)-First Place, H. P. Jordan; Second Place, N. B. Williams both of Waco; McLennan (x) County.

District No. 62-Vacancy; Falls (x) County.

District No. 63 (f)—Joe F. Coffey, Eddy: McLennan (x), Limestone ( $x$ ) and Falls (x) Counties. District No. 64-Daniel Parker, Calvert; Robertson County. District No. 65-R. 1:. Tyson, Maysfield: Milam (x) County. District No. 66-W. R. Butier, Temple; Bell ( $x$ ) County.

District No. 67 (f)-H. B. Savage, Belton; Bell (x) and Milam (x) Counties.

District No. 68-A. C. Murray, Caldwell; Burleson ( $x$ ) and Lee (x) Counties.

District No. 69-S. D. W. Lowe,
Brenham; Washington County.
District No. 70-G. A. Heilig, La Grange; Fayette (x) County.

District No. 71-George Herder, La Grange; Austin (x) and Colorado (x) Counties.

District No. $72-\mathrm{W} . \mathrm{T} . \mathrm{Bagby}$, Hallettsville; Lavaca County.

District No. 73-W. L. Hall, Wearton; Wharton and Jackson Counties.

District No. 74-Leopold Morris, Victoria; Victoria, Goliad and Calhoun Counties.

District No. 7S-J. W. Flournoy, Beeville; Aransas, Refugio, San Patricio, Bee and Live Oak Counties.

District No. 76-Pat F. Dunn, Corpus Christi: Duval, Nueces, Jim Wells and Kleberg Counties.

District No. 77-Sam B. Householder. San Benito: Willacy, Cameron and Kleberg Counties.

District No. 78-D. W. Glasscock, McAllen: Starr, Hidalgo, Brooks and Jim Hogg Counties.

District No. 79-A. R. Smith, Laredo: W̌ebb and Zapata Counties.

District No. 80-Frank H. Burmeister. Christine; Frio. Atascosa, McMullen and LaSalle Counties.

District No. 81-A. S. Crisp, Cureo: Karnes and DeWitt (x) Counties.

Tistrict No. 82-O. B. Robertson, Waelder; Gonzales County.

District No. 83-James Greenwood. Seguin; Guaralupe County. District No. 84 (f)-Sam Gates, Runge; Wilson and Karnes (x) Counties.

District No. 85 (4)-First Place. Bernard Schwegman Sr.; Second Place, D. A. McAskill: Third Place, otto Wahrriund; Fourth Place, Chester H. Terrell, all of San Antonio; Rexar County.

District No. 86 -Frank L Tiller, Luling: Caldwell County.

District No. 87-William Bierschwale, Fredericksburg; Llano, Gillespie, Blanco and Kendall Counties.

District No. 88-Daniel Watson, San Marcos; Hays and Comal Counties.

District No. 89 (2)-First Place. Ceorge W. Mendell Jr.; Second Place. O. E. Olander, both of Austin: Travis County.

District No. 90-Roger Byrne, Smithville: Bastrop County.

District No. 91-John D. Hughes, Georgetown; Williamson ( $x$ ) County.

Listrict No. 92 (f)-Edwin M. Dodson, Burnet: Williamson (x) and Burnet Counties.

District No. $98-\mathrm{J} . \mathrm{H}$. Morris, Oglesioy: Coryell and Lampasas Counties.

District No. 94-A. R. Watson, Mullin; Mills and Hamilton Counties.

District No. 95 (f)-L. A. Colquitt, Rio Vista; Jolinson (x) and Busque Counties.

District Ňo. $96-$ W. B. Goodner, Dublin; Erath (x) County.

District No. 97 (f)-C. D. Spann.

Glen Rose; Hood, Somervell and Erath (x) Counties.

District No. 98-E. B. Ritchie, Mineral Wells; Palo Pinto and Stephens Counties.

District No. 99-Vacancy; Young and Jack Counties.

District No, $100-$ Edgar P. Haney, Henrietta; Clay and Archer Counties.

District No. 101-Vacancy; Wichita and Wilbarger Counties.

District No. $102-$ R. B. Humphrey, Throckmorton; Baylor, Throckmorton and Haskell Counties.

District No. 103-W. H. Fatliff, Quanah; Hardeman, Foard and Knox Counties.

District No. 104-W. D. Cope, Childress; Cottle, Motley, Childress and Hall Counties.

District No, $105-A . J$. Hagins, Jayton; Dickens, Kent. King, Stonewall and Scurry Counties.

District No. 106-T. J. Barrett, Anson; Jones and Shackelford Counties.

District No. 107 -J. M. Wagstaff, Abilene; Taylor County.

District No. 108-R. G. Powell, Baird; Callahan ( $x$ ) and Eastland Counties.

District No. 109——T. S. Ross, De Leon; Comanche County.

District No. 110 (f) - H. P. Taylor, May; Brown and Callahan ( $x$ ) Counties.

District No. 111-R. S. Griggs, Ballinger; Coke and Runnels Counties.

District No. 112-Vacancy; Coleman and Concho Counties.

District No. 113-D. Teon Harp, San Angelo; Sterling. Irion, Tom Green and Schleicher Counties.

District No. $114-$ Mat $F$. Allison, San Saba; McCulloch and San Saba Counties.

District No. 115-A. M. Kenneay, Kerrville; Sutton, Kimball, Kerr, Bandera, Edwards, Crockett, Mason. Menard and Real Counties.

District No. $116-H$. P. Hornby, Uvalde; Uvalde, Medina, Zavalla and Dimmit Counties.

District No. 117-J. O. Boehmer, Eagle Pass; Maverick, Kinney, Val Verde, Terrell, Brewster, Presidio and Jeff Davis Counties.

District No. 118-Richard $F$. Burges, El Paso; El Paso (x) County.

District No. 119 (f)-Eugene L. Harris, El Paso; El Paso (x) and Culberson Counties.

District No. 120-G. N. Gentry, Pecos; Midland, Ector, Winkler (un.), Loving (un.), Martin, Howard, Reeves, Pecos, Ward, Crane (un.), Upton, Reagan and Glasscock Countles.

District No. 121 John N. Woods, Rotan: Mitchell, Nolan and Fisher Counties.

District No. 122-T. M. .Bartley, Tahoka; Brisco, Floyd, 'Crosby'

Garza, Borden, Dawson, Gaines, Andrews, Yoakum, Terry, Lynn, Lubbock, Hockley (un.), and Cochran (un.) Counties.

District No. 123-L C. Penry, Plainview; Bailey (un.), Lamb, Hale, Swisher, Castro, Parmer, Deaf Smith, Randall and Armstrong Counties.

District No. 124-R. L. Templeton, Collingsworth; Donley, Collingsworth, Gray, Wheeler, Hemphill, Roberts, Lipscomb and Ochiltree Counties.

District No. 125-Hilton R. Greer, Amarillo; Carson, Hutchinson, Hansford, Sherman, Moore, Potter, Oldham, Hartley and Dallam Counties.

District No. 126 (f)-Myron $T$. Blalock, Marshall: Harrison (x) and Gregr Counties.

District No. 127 -Leonard Tillotson, Sealy; Burleson (x), Lee (x), Fayette (x), Waller (x), Fort Bend ( $x$ ), Austin ( $x$ ) and Colorado ( $x$ ) Counties.

Note.-There are 127 legislative districts in Texas and 142 members of the House. Districts having more than one Representative will be indicated with the proper numeral in parenthesis following the number of the district, thus "District No. 44 (4)." Counties forming a part of a flotorlal district will be marked thus: (x), following the name of the county. Flotorial districts are indicated thus: (f). A flotorial district is one composed of two or more counties, one or more of which form a complete district. Unorganized countles are indicated thus: (un).

## COURTS OF TEXAS; <br> THELR JURISDICTION

The fudiciary system of Texas consists of a Supreme Court, a Court of Criminal Appeals, eight Courts of Civil Appeals, seventytwo District Courts, County Courts, Municipal Courts and Justice Courts.

The Supreme Court and Courts of Appeal are known as the higher Courts of the State. District Courts have jurisdiction in both civil and criminal cases, law and equity, except in thickly populated counties, where cases are divided into criminal and civil actions and tried before courts of defined jurisdiction.

## Texas Supreme Court.

The Supreme Court heads the judiciary system of Texas. It is the last resort for all questions of civil and constitutional law, casel being transferred from lowet courts on writs of error or on cer ${ }^{2}$ tified questions when Courts of Civil Appeal are in conflict and when there are dissenting opin: ions.

The present Supreme Court, 10 .
cated at Austin, is presided over by Chief Justice T. J. Brown, whose term of office expires in 1918; Associate Justice Nelson Phillips, whose term of office expires in 1916; Associate Justice William E. Hawkins, whose term of office expires in 1914.

The term of office of Supreme Court Judges is six years, one Judge being elected every two years. Salary $\$ 5,000$ per annum. Clerk of court, Fred T. Connerly.

## Court of Criminal Appeals.

The Court of Criminal Appeals is located at Austin and is the court of last resort in all criminal cases except in matters coming under the rules of appeal to the Supreme Court.

The court is presided over by Presiding Judge A. C. Prendergast, whose term of office expires in 1918; Associate Judge W. L. Davidson, whose term of office expires in 1914, and Associate Judge A. J Harper, whose term of office expires in 1916. Term of office six years, one Judge being elected every two years. Salary $\$ 5,000$ per annum. Clerk of court, E. P. Smith.

## Courts of Civil Appeal.

There are eight Courts of Civii Appeal, each court being presided over by a Chief Justice and two Associate Judges. The term of of fice is six years, one Judge being elected every two years. The salary is $\$ 4,000$ per year.

First District, Galveston-R. A. Pleasants, Chief Justice, term of office expires in 1914; S. A. McMeans, Associate Justice, term of office explres in 1916: T. S. Reese, Associate Justice, term of office expires in 1918. Harry Garrett. clerk.

Second District, Fort Worth--T. H. Conner, Chief Justice, term of office expires in 1916; Irby Dunklin, Associate Justice, term of office expires in 1918; Ocie Speer, Associate Justice, term of office expires in 1914. J. A. Scott, clerk.

Third District, Austin-W. M. Key, Chief Justice, term of office expires in 1918; R. H. Rice, Assoclate Justice, term of office expires in 1916; Charles H. Jenkins, Associate Justice, term of office expires in 1914. R. H. Connerly, clerk.

Fourth District, San AntonioW. S. Fly, Chief Justice, term expires in 1918; A. N. Moursund, Associate Justice term expires in 1916; George B. Taliaferro, Associate Justice, term expires in 1914. Joseph Murray, clerk.

Fifth District, Dallas-Anson Rainey, Chlef Justice, term expires In 1916; J. M. Talbot, Associate Justice, term expires in 1914 ; Charles A. Rasbury, Associate Justice, term expires in 1918. George W. Blatr, ciert

Sixth District, Texarkana-S. P. Wilson, Chief Justice, term expires in 1914; R. B. Levy, Associate Justíce, term expires in 1916; Willam Hodges, Associate Justice, term expires in 1918. E. T. Rosborough, clerk.

Seventh District, Amarillo-S. P. Huff, Chief Justice, term expires in 1918; R. W. Hall, Associate Justice, term expires in 1914; H. G. Hendricks, Associate Justice, term expires in 1916. J. M. Oakes, clerk.

Eighth District, El Paso-J. R. Harper, Chief Justice, term expires in 1918; J. F. McKenzle, Associate Justice, term expires in 1914; E. F. Higgins, Associate Justice, term expires in 1916. J. L. Driscoll, clerk.

## Civil Appealn Dintricts.

First District-Anderson, Angelina, Austin, Brazoria, Brazos, Burleson, Chambers, Colorado, DeWitt, Fayette, Fort Bend, Galveston, Grimes, Hardin, Harris, Houston, Jackson, Jasper, Jefferson, Lavaca, Leon, Liberty, Madison, Matagorda, Montgomery, Nacogdoches, Newton, Orange, Polk, Sabine, San Augustine, San Jacinto, Trinity, Tyler, Walker, Waller, Washington and Wharton Countles.

Second District-Archer, Baylor, Bosque, Callahan, Clay, Comanche, Cooke, Denton, Eastland, Erath Haskell, Hood, Howard, Jack, Johnson, Jones, Knox, Mitchell, Montague, Nolan, Palo Pinto, Parker, Shackelford, Somervell, Stephens, Stonewall, Tarrant, Taylor, Throckmorton, Wichita, Wise and Young Counties.

Third District - Bastrop, Bell, Blanco, Brown, Burnet, Caldwell, Coke, Coleman, Comal, Concho, Coryell, Crockett, Falls, Hamilton Hays, Irion, Lampasas, Lee, Llano, McCulloch, McLennan, Milam, Mills, Robertson, Runnels, San Saba Schleicher, Sterling, Tom Green Travis and Williamson Counties.

Fourth District-Val Verde, Sutton, Edwards, Kinney, Maverick, Menard, Kimball, Kerr, Bandera Uvalde, Zavalla, Dimmit, Webb, LaSalle, Frio, Medina, Duval, McMullen, Atascosa, Bexar, Kendall, Gillesple, Mason, Guadalupe, Wilson, Live Oak, Zapata, Bee, Gonzales, Karnes, Calhoun, Victoria, Goliad, Refugio, San Patricio, Aransas, Nueces, Hidalgo, Cameron, Starr, Brooks, Jim Wells, Willacy, Jim Hogg, Kleberg, Real and Dunn Counties.

Fifth District-Collin, Dallas, Delta, Elis, Freestone, Grayson Henderson, Hill, Hunt, Kaufman, Limestone, Navarro, Rains, Rockwall, Van Zandt and Wood Counties.

Sixth District-Bowie, Camp Cass, Cherokee, Franklin, Gregg, Harrison, Hopkins, Kaufman, Lamar, Marion, Morris, Panola, Red

River, Rusk. othelby, Smith, Titus and Upshur Counties.

Seventh District-Bailey, Borden. Brisco, Castro, Cochran, Collingsworth, Cottle, Crosby, Carson, Childress, Armstrong, Dallam, Sherman, Hansford, Lipscomb, Ochiltree. Hartley, Moore, Hutchinson, Roberts, Hemphill, Oldham. Potter, Gray, Wheeler. Deaf Smith, Pandall, Donley, Parmer, SWisher, Hall, Lamb, Hale, Floyd, Motley, Foard, Hardeman, Wilbarger, King, Dickens, Lubbock, Hockley, Yoakum, Terry. Lynn, Garza, Kent, Scurry, Dawson, Gaines and Fisher Countles.

Eighth District-Andrews, Martin, Loving. Winkler, Midland, Glasscock, Reeves, Ward, Crane, Upton, Reagan, Terrell, Pecos, Brewster, Presidio, Jeff Davis, El Paso, Ector and Culberson Counties.

## Diatrict Courts.

Information concerning the various District Courts and the counties of jurisdiction will be found in the table of political districts. (See Index.)

## TEXAS CAPITOL BUILDING.

The Texas State Capitol is the largest State Capitol in the United States and approaches the National Capitol in area and excels it in many particulars. It is the seventh largest bullding in the world. It was built exclusively from Texas materials.

To erect this building the State gave the contractors a block of counties equal in area to the grant which King James gave to the Earl of Warwick in 1630 to establish a colony in America, and which is now the State of Connecticut.

The Capitol Building measures 600 feet from east to west. from north to south it measures 287 feet, from the ground to the top of the dome 313 feet. The Texas Capitol is six feet higher than the National Capitol, the latter being only 307 feet. The outside of the Texas Capitol is built of the finest red granite secured from the quarries in Burnet County, Texas. Wainscoting is of oak, cherry, walnut, pine, ash, cedar and mahogany. The total length of the wainscoting is eight miles. The building alone covers three acres. the floor space covering twenty acres. Construction was begun in 1882 and completed in 1886 . In the grounds of the Capitol there are twenty-two acres, four acres of walks and four acres of drives.

## FORCED SALE EXEMPTIONS.

A homestead in a town or city, the land worth not to exceed $\$ 5,000$, together with the improvements thereon irrespective of value, or a homestead of 200 acres in the coun-
iry, together with improvements thereon, is exempt from forced sale, except for the purchase price thereof or for improvements thereon, and in this last case only when the work and material are contracted for in writing with the consent of the wife, given in the same manner as is required in making a sale and conveyance of the homestead. Other e eemptions are: All household and kitchen furniture and all provisions and forage on hand for home consumptlon. Any lot or lots in a cemetery for the purpose of sepulcher. All improvements of husbandry and all tools, apparatus and books belonging to any trade. The family library and all family portraits and pletures. Five milch cows and their calves and two yoke of work oxen, with necessary yokes and chains. One gun, two horses and one wagon, one carriage or buggy, and all saddles. bridles and harness necessary for the use of the family. Twenty head of hogs and twenty head of sheep. All current wages for personal service.

## LEGAL HOLIDAYS IN TEEXAS.

Jan. 1, New Year's Day: Feb. 22, Washington's Birthday and Arbor Day: March 2. anniversary of Texas independence; April 21, anniversary of battle of San Jacinto: June 3, Jefferson Davis' Birthday: July 4, Independence Day; July (fourth Saturday), Primary Election Day; September (first Monday). Lahor Day; Oct. 12, Columbus Day; November (first Tuesday), General Election Day; Nnvember (usually the fourth Thursday), Thanksgiving Day: Dec. 25. Chiristmas. On these days all public offices are closed and are treated the same as Sunday for all purposes regarding the presenting for payment or accentance and of protesting for and glving notice of the dishonor of bills of exchange, bank checks and promissory notes placed by the law upon the footing of bills of exchange.

## TFEXAS BUYS VEHICLES.

Texas spent $\$ 40.960,000$ for vehicles and agricultural implements in 1912 and $\$ 25,000,000$ of this amount went for automobiles. The expenditure per capita last year for autos was $\$ 6.25$, although records show that only one person out of every 110 in Texas owns a car. We manufacture very few agricultural implements, although we are heavy consumers of farm machinery and wagons. The per capita production of ail vehicles and agricultural implements in 1912 was only:32c and the consumption was $\$ 10.24$ per caplta. The total output of these products in 1912 was valued at $\$ 1,263.750-$ Comimercial Secretarles.

## TAX, BOND AND FINANCIAL <br> STATISTICS FOR TEXAS

The rapid development of Texas along material ifnes is a tale best told in figures. In 1846, the year in which Texas became a part of the United States, its taxable property was valued at \$34,391,175, a less amount than the present valuation in single counties. In 1853 valuations approximated one hundred million and in 1902 the total crossed the billion mark. Since that date the increase has been rapid, the total amounting to more than $\$ 2,600,000,000$ in 1913.

```
STATE TAX RATE
    AND VALUATIONS
    Following is a statement show-
ing the rate of taxation and the
assessed value of the State for the
years beginning with 1846 up to
and including 1913:
```

Comparative statement.


Includes 5c tax for Confederate pensions.

Note-Total valuation. 1913, as stated in table. is approximate only.

STATE BONDED DFRT

## AND BOND OWNERS

| Refunding bonds. 1005......... $\$ 1.647,000$ |  |
| :---: | :---: |
| or retiring frontier de |  |
|  |  |
| For retiring bonds past du |  |
| For retiring bonds pa State floating bonds. | 334.500 285,000 |
| Total | 83,978,2 |
| Owners of Sta |  |
| Permanent school fund.........82,772,000 |  |
| Blind Institute.... |  |
|  |  |
| Deaf and Dumb Insti |  |
| Lunatic, Asylum fund............ $\quad 126.300$ |  |
| A. \& M. College.............. 205.000 |  |
|  |  |
| Total. |  |

## TREASURY STATEMENT.

Treasurer Edwards has issued a statement showing that there remained in the cash fund at the close of the fiscal year, Aug.' 31, $\$ 795,370.41$, while the total of bonds was $\$ 20,127,720.28$. The distribution is as follows:
General revenue.............. 3 . 333.61568 Arailbale school fund.......... 213.5 . 41 Permanent school fund.....: 106.63210 Bonds of this fund.......... 18,815,105 18 Available unlversity fund... , 15,91555 Permanent university fund.. 15.41318 Bonds ........................ 603.600 00 ermanent blind asylum 1.59745

## TREASURY STATEMENT-Cont.

Permanent deaf and dumb asylum land sales.
1.73841 Bonds 110,89040
Permanent lunatic asylum land sales

97839
Bonds
Permanent orphan asylum land sales

129,300 00

Bonds
A. \& m. College fund
1.75294
40.55000

1,795 00
205,000 00
Unorganized county tax fund 16,364 29

2,67930
organized counties.........
Available university fund (medical branch).

4,524 33
63314
Cost of advertising lands in
unorganized counties
Pro rata indebtedness fund
Escheated estates account. . Bonds
, 184
37500
Settlement of estates.
Fish and oyster fund.
Special tax bonds.
59155
35,936 65
79.409 50
excess purchase, price, etc. account
3.43135

47872
75187
5,000 00
Endowment fund (medical branch)

Winkler County special juror tax

1570
1739
6,77441
79265
6.62340
705.37041

## ADDITIONAL STATE REVENUE.

As estimated by the State Controller, the State of Texas will receive during the year, other than revenue obtained by the ad valorem tax, as follows:

| solyent | - |
| :---: | :---: |
| Redemptions | 82,327 |
| Poll taxes | 287.430 |
| Three-fourths occupation | 637.854 |
| General Land Office fees | 23, 719 |
| Department of State. | 600.799 |
| Attorney General | 2.000 |
| Controller | 12.569 |
| Treasurer | 611.914 |
| Insurance and Banking | 94.477 |
| Ruilding and Grounds. | 7.663 |
| Health Department | 17,807 |
| Interest, etc | 1:3.351 |
| Sundry asylums | 20.318 |
| Inheritance tax | 25,569 |
| Miscellaneous | 24,051 |

## Total

 \$2,563,211School taxes to be collected for the twelve months of the ensuing fiscal year:
School redemptions................ $\$ 128,870$
School insolvents..................... 7 .657
School polls.
565,169
School occupation taxes. .......... 202,817
Collections by State Treasurer.. 190,701
Interest from depository. .
Collections by Controller.
4.211

Interest on bonds.
695,401
Interest from land sales and
leases ........................... 1,277.301
Total. . . . . . . . . . . . . . . . . . . . . . . $\$ 3.074,752$

## APPROPRIATIONS

FOR 1914 AND 1915.
Following is a summary of the appropriation bill passed by a called session of the Legislatura.

1913, for the support of the State government and its various departments for the years 1914 and 1915:

## Jndiciars:

$1914 \quad 1915$

| Su |  |  |
| :---: | :---: | :---: |
| Court of Criminal Appecils. | 31.678 | 3 |
| Courts of Civil Appeils..... | 118,815 | 117,315 |
| District Courts | 840,900 | 840,900 |
|  | ,021.703 | \$1,019,503 |

## State Departments.

| Executive Office ............s | 25,916 | 16 |
| :---: | :---: | :---: |
| Mansion and Gro | 15.000 | 3,000 |
| Department of State | 22,550 | 2,350 |
| State Revenue Ac | 4,800 | 3,600 |
| Public Buildings and | 49,370 | 54,370 |
| Inspector of Masonry, Pub- |  |  |
| De partment of Insurance and Banking | 124,151 | 9,650 223,151 |
| Texas Library a d Historical Commission | 13,048 |  |
| Public Printing | 41,450 | 41.450 |
| Bureau of Labor Statistics. | 12,222 | 7.012 |
| Adjutant General's Office. | 69.292 | 45,580 |
| State Board of Health | 60,200 | 58,200 |
| Game, Fish and Oyster | 8,550 | 6,050 |
| Live Stock Sanitary Commission | 50,400 | 50,400 |
| State Mining Board | 5,500 | 4,900 |
| Pure Food Commissioner. | 14,600 | 14,600 |
| State Pension Department.. | 21,500 | 21.400 |
| Attorney General's Department | 44,830 | 44,330 |
| Department of Educatio | 130,170 | 30,170 |
| Treasury Department | 14,230 | 13,130 |
| Controller's Department | 63,110 | 59,110 |
| General Land Office. | 67,500 | 67,500 |
| Railroad Commission | 36,580 | 36,580 |
| Department of Agriculture. | -57,698 | 62,428 |
| Board of Water Engineers. | 20,200 | 20,200 |
| State Levee and Drainage Board | 44,800 | 3,600 |
|  | ,027.317 | \$ 940,775 |

## Eleemosynary Institutions.

| Home.......s | 76,260 | 58.260 |
| :---: | :---: | :---: |
| Confederate Home | 96,770 | 93,4 |
| Confederate Woman's Home | 17,005 | 4,63 |
| Blind Institute | 91,880 | 60, |
| Deaf and Dumb Ins | 124,100 | 135.4 |
| Epileptic Colony | 96,300 | 188,4 |
| Deaf, Dumb and Blind In- |  |  |
| stitute for Colored Youths | 40.430 | 30,63 |
| Juvenile Training School.... | 127,760 |  |
| Tuberculosis Sanitarium | 92,399 | 81,966 |
| State Lunatic Asylum. | 358,140 | 349,940 |
| Southwestern Insane Asslum | 263,100 |  |
| North Texas Hospital for |  |  |
| the Insane | 348,100 |  |
| State Training School for |  |  |

\$1,742,244 \$1,800,711
Penitentiary (regular session), $\$ \mathbf{\$ 5 0 , 0 0 0}$ for current expensc\& and support.

## Edncational institutions.

| Bureau of Economics and |  |  |
| :---: | :---: | :---: |
|  |  |  |
| Technology ............... |  | \$ 12,50 |
| Agricultural and Mechanical |  |  |
| State Experimental Substa- |  |  |
| tions $\times$.................... | 87,500 | 87,500 |
| Prairie View Normal | 44,250 | 44,000 |
| College of Inđustrial | 92,982 | 85,450 |
| Sam Houston Normal | 72,350 | 71,700 |
| North Texas State Norma | 121,000 | 65,700 |
| Seuthwost Texas State Nor- |  |  |
| ${ }_{\text {mal }}$ | 74,800 | 61.000 |
| West Turas State | 62, 100 | 60.09 |
|  | 9, 㚳 |  |


| Miscellancour Claims, Etc. |  |  |
| :---: | :---: | :---: |
| Miscellaneons ............ $\$ 2146,760.89$ |  |  |
| Mileage and per diem..... 550,00000 |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | 82,236.760 | S 10,000 |
| Total eppropriations | \$7,413,306 | \$4,466,639 |

COUNTY ASSESSMENTS
FOR 1913 AND 1912

| Counties - |  |  | 0 <br> 最 | $\underset{\text { Fannin }}{\text { Fante }}$ | $\begin{aligned} & 2,646,893 \\ & 19,618,293 \end{aligned}$ | $2,708,620$$18,634,086$6,482573$6,144,919$$4,088,065$$14,68,480$$2,485,396$$7,176,765$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  | Fisher <br> Floyd | $\begin{aligned} & 6,12,199 \\ & 6.544,336 \end{aligned}$ |  | $\begin{aligned} & 994,207 \\ & 258,374 \end{aligned}$ |
|  |  |  |  | Foard | $\begin{aligned} & 6,544,336 \\ & 4,254,831 \end{aligned}$ |  | 399,417 |
|  |  |  |  | Fort Be | 14,903,443 |  |  |
|  |  |  |  | Franklin |  |  | 160, 580 |
|  |  |  |  | Freeston | 7,859,305 |  |  |
| nderso | \$13,688,660 | \$12,856,800\| | $\begin{aligned} & - \\ & \begin{array}{c} \$ 81,880 \\ 342,190 \end{array} \end{aligned}$ | Frio | 7,132,208 | $6,196,802$ |  |
| Andrews |  |  |  | Galvesto | $41,320,509$ | $2.923,1001$ | *119,20 |
| Angelina | 10,078,407 | - ${ }^{2,3045,689}$ |  |  |  |  | 1,573.719 |
| Aransas | 2,883,718 | $\begin{aligned} & 2,847,606 \\ & 6,441,424 \end{aligned}$ | ${ }^{46.112}$ | Garza | 3,004,174 | $\begin{aligned} & \mathbf{2}, 62,155 \\ & \mathbf{5} .736 .425 \end{aligned}$ |  |
| Archer |  |  | *260,884 | Glasscock | 1,926,038 |  | $\begin{aligned} & 71,25 \\ & 43,500 \end{aligned}$ |
| Atascosa | 4.558,141 | 7,840,565 | 2,591.185 | Goliad Gonzales | 8,652,75 | 8,388,706 | 264,049 |
| Austin | , \%99,58 |  | 205.372 |  | $\xrightarrow{15,946,265}$ | 15,173,022 | $\begin{aligned} & 773,243 \\ & 278,023 \end{aligned}$ |
| Bailey |  |  | 91, 100 | Gonzales Gray .... |  | 44,160,820 |  |
| (a) Band |  |  | 216,935 <br> 94,856 | Grayson | 45,521,022 |  | $\begin{array}{r} 2,36,08,197 \\ 1,30,197 \end{array}$ |
| Bastrop | 13,642.198 |  |  | Gregg <br> Grimes $\qquad$ | $\begin{gathered} 4,723,655 \\ 12,825,008 \end{gathered}$ | $\begin{array}{r} 4,38,571 \\ 10,804,801 \end{array}$ | $\begin{array}{r} 340,084 \\ 2,020,284 \end{array}$ |
| Baylor |  | $\overline{6}, 550,591$ | 698,800 |  |  |  |  |
|  | 8,461,725 | 7, 8 751,785 | $\begin{aligned} & 609,940 \\ & 902,800 \end{aligned}$ | Guadslupe | 8,547,561 <br> 5,982,217 | 7,826,542 | $\begin{aligned} & 2,020,284 \\ & 1,476,165 \end{aligned}$ |
|  | $\begin{gathered} 29,669,830 \\ 105,898,862 \end{gathered}$ | 29,430,648 | 6,468, 214 | Hale ...... |  |  | $\begin{aligned} & 721,019 \\ & 2666070 \end{aligned}$ |
| Blanco | 30,113,944 |  | ${ }_{\text {-15 }}$ | Hamilton | 10,933,042 | $\begin{array}{r} 5,716,147 \\ 10,789,590 \end{array}$ | $\begin{aligned} & 266,070 \\ & 143,452 \end{aligned}$ |
| Borden | 1,526,540 |  |  | Hansford <br> Hardeman | $\begin{aligned} & 1,489,777 \\ & 8,973,320 \end{aligned}$ | $1,420,710]$ | $\begin{aligned} & 13,422 \\ & 60,067 \\ & +26,243 \end{aligned}$ |
| Bosque | 15,691,768 | $\begin{gathered} 1,60,090 \\ 11.565,140 \\ 11.690 \end{gathered}$ | $\begin{array}{r} 188.600 \\ \mathbf{4 0 9 0} 980 \end{array}$ |  |  | $8,999,563$ |  |
| Bowi |  | 11.568.080 | $\begin{aligned} & 499,980 \\ & 936,414 \end{aligned}$ |  | 10,514,721 | $\begin{gathered} 10,656,698 \\ 123,976,410 \end{gathered}$ |  |
| Brazor | $18,346,755$ $9,705,156$ | 16,861,40 | 1,485, 315 |  | 129,504,485 | 11,860,555 | $\begin{aligned} & 5,528,075 \\ & 1.011126 \end{aligned}$ |
| ${ }_{\text {Brazos }}$ |  |  | $\begin{aligned} & 381,105 \\ & 374,052 \end{aligned}$ | Harrison Hartley | $\begin{array}{r} 12,901,680 \\ 5,376,036 \end{array}$ | $\begin{aligned} & 5,209,242 \\ & 8,467,008 \end{aligned}$ |  |
| Bris |  |  | 13,566 |  | $\begin{array}{r} 8,643,079 \\ 10,669,670 \end{array}$ |  | 176,071 |
| (b) Brooks | 2,581, 83 3,357 | $\begin{aligned} & 8,000,830 \\ & 2,568,271 \\ & 5,42,442 \end{aligned}$ | ${ }^{*} 2,026,240$ |  |  | 3, 713,206 |  |
| Brow | 11,483,835 | 11,504.620 |  | Hays <br> Hemphil․ | 3,812,4815 |  |  |
| urles | $8,175,100$ | $7,800,510$$7,945,390$ | +10.785 374.590 |  |  | 6,761,250 | ,15 |
| urn |  |  | $\begin{aligned} & 1505,417 \\ & 30,266 \end{aligned}$ | $\begin{aligned} & \text { Henderson } \\ & \text { Ilidalgo } . . \\ & \text { Hill } . . . . . . \end{aligned}$ | 13,202,734 <br> 30,583,200 | 10,119,373 |  |
| Caldwell | 11,981,144 | $\frac{11,65,908}{3}$ |  | $\begin{aligned} & \text { Hill } \\ & \text { Hockley } \end{aligned}$ |  |  |  |
| Calhoun |  | $\begin{aligned} & 3,848,231 \\ & 5,948,354 \end{aligned}$ |  |  | 4,031 | 1,192,833 |  |
| Callah | $15.93,148$ <br> 3 |  | $\begin{aligned} & \begin{array}{l} 185 \\ 808,185 \\ \hline \end{array} \end{aligned}$ | Hood |  |  | $\begin{array}{r} \bullet 62,919 \\ 66,47 \end{array}$ |
| Camp |  | $\begin{array}{r} 15.115,094 \\ 2,881.600 \end{array}$ | 808,045 401,445 | Houston | 9,079,375 | 7,820,590 | 1,258,450 |
| ars | - $3,285,045$ | $\begin{array}{r} 2,881,600 \\ 3,142,568 \end{array}$ | 716,365 |  | 4,842,806. | 4,814 |  |
| Cass | $6,783,135$$3,299,433$ | 5,130,195 | 1,652,940 | Hrunt | 25,429,256 | 24,428 | ,004,901 |
| Castro |  | 3,255,738 | 23,6 | Hutchinso | 1,313, 800 | 1,278,937 |  |
| camb | 3.206 | 067 |  | rio | ${ }^{2}, 312$ | 2,733,36 | 420,750 |
| Cherokee | 11,891.855 | 11,660.413 | 231,442 | Jac | 7,058, | 6,733,980 | 324,200 |
| Childre | 5,275,765 | 4.972.825 | 302. 410 | Jacksson | 9,773.120 | 9,436,030 |  |
| Clay | 14,483,375 | 13,346,650\| | 1,136,725 | Jasper | 10,852, 720 | 8,371,200 | 2,481,520 |
| Cochr | 572,986 | 468.7 | 59,150 | Jeff Dar |  | 走,236,122 | ${ }_{+}^{+92,346}$ |
| Coke . | 3,215,825 | 3,153,803 | 62,022 | Jeffersora | 49,266,544 | 45,681,692 | 3,594,858 |
| Coleman | 13,119,970 | 13,057,760 | 62,210 | Jim Ho |  |  |  |
| Collin | 27,829,119 | 2, 346,776 | 1,482,34 | Jim Wells | 6,929,645 | ${ }^{6,450}$ |  |
| ollingsw | 3,888,642 | 3,770,372 | 128,70 | Johnson | $22,356,735$ | 22,122, |  |
| Colora | 13,579,737 | 13,318,496 | 361,241 | Jones | 12,191, | 13,464, | 222 |
| Comal | 6,945,198 | 6,478,289 | 466,929 | Karnes | 10,658 |  | 219 |
| Comanc | 11,789,449 | 11,538 | 201,308 | Kanfmar | 19,188, | 18,646, 5 | 541,627 |
| Conct | 4,471,881 | 4,533,566 | *61,669 | Kendall | 3,709, | 3,692 | 17,436 |
| Cook | 16,47,897 | 14,094,970 | 2,376,927 | Ken | 2,375,317 | 2,423 | 48,4 |
| Coryell | 9,545,730 | 9,151,646 | 388,084 | (e) Kerr | 4,218,01 | 3,949, |  |
| Cottle | 4,581 | 4,512.6 | 68,881 | Kimble | 2,634, | 2.612 | 2. |
| Grar | 754.535 | 648,915 | 105,620 | King | 1,769,098 | 1,765,838 | 22, |
| Crocket | 2,742,442 | 2,835,705 | -43,234 | Kirmey | 4,5922 | 4,608,476 | 15,576 |
| Crosby | 3,530.920 | 3,640,412 | -109,490 | Klebers | 6,578,39 |  |  |
| Culbers | 4 17 | 4,341 | 276.184 | Knox | 6,269,477 | 6,101,786 |  |
| Dallam | 763,300 | 996,0 | 167,244 | Lam | 26,815, | 25,685, | 130,972 |
| Dallas | 550.35 | 18,387 | 11,162.550 | Lamab | 3,187,01 | 2,817. | 369,115 |
|  | 2,838,026 |  |  | Lampasa | 6,975,701 | 6,751,2 | 274,455 |
| Deaf 8 | 5,902.272 | 7,49,078 | , 416,806 | La Sall | 4, 854, 488 | 4,553,566 | 300,904 |
| Delta | 6,833,480 | 5,487.342 | 346,138 | Lavaca | 17, 2 ze, 31 | 17,011,02 | 218,349 |
|  |  |  | 540,330 |  | 6,671,6 | 6,318,140 | 313 |
| DeWitt | 18,563,040 | 17,917,03 | 646,010 | Leo | 8,110.56 | 6,969,399 | 1,161,278 |
| Dickens | 3,973,744 | 3,856,582 | 117,162 | Liberty | 9,181.455 | 8,879.081 | 302,571 |
|  |  |  | 1,237,969 | Limesto | 15,48,450 | 14,888, | 610,250 |
| Donley | 6,688,943 | 5,434,470 | 254,473 | Lipecom | 3, 616,250 |  | 813.415 |
|  |  |  |  |  | 4,393,861 | $\begin{aligned} & 4,073,405 \\ & 6,567,5 \end{aligned}$ |  |
|  |  | 4,202,000 | 645,33 |  | 8,6 | 6,577,583 |  |

County Assessments-Contiuned.

| Counties- | $8$ |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | 4,971.301 | $2.862,428$ | 136, 054 |
| Lym | $2,082.007$$4,694.670$ |  | $\begin{array}{r}\text { + } 780,721 \\ 1,12060 \\ \hline\end{array}$ |
|  |  | 3,582, 610 |  |
| arion | 3,962, 231 | 2,52, 53134.373 | $\begin{array}{r} 79,580 \\ 218,465 \end{array}$ |
| ason | $2,603,4,43$ 4,532050 |  |  |
| Matagord | 16,172,645 | 15.03,0*5 | $\begin{aligned} & 218,465 \\ & 1.134,580 \end{aligned}$ |
| Maveriek | $6,132,661$$7,529,916$ | $5,640,825$$7,901,417$ | $\begin{array}{r} 491,835 \\ -371,501 \end{array}$ |
| McCuloc |  |  |  |
| McLenna | 54.701.370 | 50,604,850 | $\begin{array}{r} 371,501 \\ 4.096,520 \end{array}$ |
| McMulli | 2, $11.251,450$ | $2.109,118$$9.916,706$ | 222,879$1,334,749$ |
| Medina |  |  |  |
| enar | 2.54, 0551$5,734,287$ | $\begin{aligned} & 2,760,830 \\ & 5,55,118 \end{aligned}$ | $\begin{aligned} & 176,85 \\ & 197,139 \end{aligned}$ |
| Midlan |  |  |  |
| Milam | 19,574,487 <br> 6.205,110 | 18,3i3,589 | 1,200, 898 |
| Mills |  | $\begin{aligned} & 6,216,6651 \\ & 6,355,2961 \end{aligned}$ |  |
| Mitchell | $\begin{aligned} & 6,205,1101 \\ & 6,356,8481 \end{aligned}$ |  |  |
| Montague | 12,806.465 | 12.016,322 |  |
| Montgome |  | 10.865.440 | 790,145 $\times . . .1$. |
| Moore | 2,201,116 | 2,626, 207 | $9,849$ |
| Morris | 2,558,149 |  | $\begin{gathered} 68,058 \\ 605,695 \end{gathered}$ |
| Motley | 3,934, 941 | $\begin{aligned} & 3,329,246 \\ & 9,218.570 \end{aligned}$ |  |
| Na cogdoc | 9,548,490 |  | $\begin{array}{r} 605,695 \\ 309,920 \\ 4.198 .845 \end{array}$ |
| Navarro | 26,813.845 | 22,620,000 |  |
| Newton | 6,068,308 | $\begin{aligned} & 5,711,966 \\ & 8,040.405 \end{aligned}$ |  |
| Nolan | 8,207,676 |  | *2.729 |
| (f) Nueces | 17,886,190 | - $17,032,00.413$ | 8.3 .977$* 18.186$ |
| Ochiltree | 1,515,291 | $\left.\begin{array}{\|c\|c\|c\|} 1,53,-777 \\ 3,6+8.333 \end{array} \right\rvert\,$ |  |
| Oldham | 3,616,753 |  | $\begin{array}{r}* 18.186 \\ * 51.75 \\ \hline 819.416\end{array}$ |
| Orange | 8,223,548 | $\begin{array}{r} 7,47,132 \\ 10,44,180 \end{array}$ | 819,416425,190 |
| Palo Pin | 19, 865,370 |  |  |
| Panola | 4,701,2001 | $\begin{aligned} & 10,44,1801 \\ & 4,80,8001 \end{aligned}$ | $\begin{array}{r} +120,600 \\ 629,460 \\ \end{array}$ |
| Park | $13,486,760$ | $\begin{array}{r} 12,857,390 \\ 4,792,839 \end{array}$ |  |
| Parm |  |  |  |
| Pecos | $8,072,019$$8.436,144$ | 7,100, 840 | $\begin{aligned} & 906,100 \\ & 741,153 \end{aligned}$ |
| Polk |  | 12,401, 259 |  |
| otte | 12.577, 135 |  | 741,153 |
| Presidio |  | $5,61,58$2.59 .415 | $\begin{array}{r} 401,210 \\ 238.075 \end{array}$ |
| Rains | 2, 907,490 |  |  |
| Randal |  | $\begin{aligned} & 5,170,790 \\ & 1,371,438 \end{aligned}$ |  |
| Reag | 4,617,764 |  |  |
|  | …….. |  |  |
| Red Ri | 12.408.388\| | 11,975,020 | ${ }^{433}, 088$ <br> 801.952 |
| Reeres |  | 8,676,400 |  |
| Refugio | 4.914.604 | $4.112,604$$2,388.72$ |  |
| Robert |  |  | 801.962 312.782 |
| Robertson | $13,288,1101$ |  | $\begin{array}{r}1,642,385 \\ 174,007 \\ \hline\end{array}$ |
| Ruchwall |  |  |  |
| Rume | 10,15i.342 | $\begin{array}{r} 5,011,241 \\ 10.28,541 \end{array}$ | $\begin{gathered} 119,07 \\ * 190 \end{gathered}$ |
| Rusk | $\begin{aligned} & 5.977,880 \\ & 4,537888 \end{aligned}$ | $\begin{array}{r} 5.670 .016 \mid \\ 4.696 .7 S 4! \end{array}$ | 307,864 |
| 号 |  |  | 1,123,878 |
| 3 an Aug | $4,537,898$ <br> $5,598.121$ <br> $3,451.100$ | 4.472,243 |  |
| San Jacir |  |  | $200,145$ |
| San Patri | $\begin{aligned} & 3,645,100 \\ & 7,348,051 \end{aligned}$ | 6.803 .321 |  |
| San Saba | 9,111,349 | $\begin{aligned} & 9,153,997 \\ & 3,333 \end{aligned}$ |  |
| Schleich | $\begin{aligned} & 3,189,380 \\ & 6,440,682 \end{aligned}$ |  | *14, 14.20 |
| Scurry |  | $\begin{aligned} & 6,44,443 \\ & 3.485,644 \end{aligned}$ | * $1+43.200$ |
| Shackelfo | 3,663.204 |  | 177.560156.954 |
| Shelby | 7,233,272 | 7,128,318 |  |
| Sherman | $3,399,211$$14,122,621$ | 3,221,358 | $\begin{aligned} & 156,954 \\ & 177,853 \end{aligned}$ |
| Smith |  | 13,091,194 | 1,036,4z7 |
| Somerve | 1,297,755 | 1,232.295 | 65,460 |
| Starr | 2.564,515 | 1,833,515 | 31,060 |
| Stephens | 4,707, 071 | 4,675,62 | 31,444 |
| terling | 2.070 .74 | 1,995.07t | 1.075,690 |
| Stonewa | 4.210,34J | 4.500.080 | * 39,740 |
| Sutton | 2,966,423 | 2,993,504 | 72.919 |
| Wisher | 4.733.747 | 4,676.882 | 36,865 |
| Tarrant | 97.696,872 | 93,276.040 | 4,420,833 |
| aylor | 14,114,950 | 13,941,765 | 173.185 |
| terrell | 3,888,644 | 3,757,675 | 70,949 |
| criy | 1,909.522 | 1,952.5\% | *42.973 |
| Throck | 4,241, 133 | 3,978,241 | 262.897 |
| itus | 4,760,003 | 4,622,660 | 137.343 |
| Tom G | 10.875.500 | 10.223.510 | 581,990 |
| Travis | 38.644,950 | 36,192,520 | 2,452.430 |
| rinity | 6,544,911 | 6,333,238 | 261.673 |
| yle | 5,269,531 | 5,295,688 | *26,137 |
| pshur | 6,067,700 | 5,392,915 | 644,785 |
|  | 467298 | 1.981,880 | 191 |

County Assessments-Continued.

| Cocunties - |  |  | $\begin{aligned} & \text { \$ } \\ & \text { d } \\ & \text { \# } \\ & \text { E } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Tvalde | \$9.008,809 | \$8.652,154 | 356,655 |
| Yal Verde | 8,940.516 | 8,669,895 | 235,'621 |
| Yan Zandt | 9.541.435 | 8,662,450 | *878,980 |
| Victoria | 13.539180 | 11,643.690 | 1,885,490 |
| Walker | 5,831.925 | 5,592.570 | 229,355 |
| Walle | 5,3,4,278 | 5,172.659 | 191,619 |
| Ward | 4,462.366] | 4,687,174 | -224,808 |
| Washington | 11.072 .190 | 10,886,903 | 215.28 |
| Webb | 7,980,413 | 7.692.351 | 228,062 |
| Wharton | 15.869,939 | 15,714.462 | 153,447 |
| Wheeler | 3,811,538 | 3.634,748 | 176,790 |
| Wichita | 18,507,195 | 15,851,437 | 2,655,758 |
| Wilbarger | 11,466,140 | 10.750,775 | 715,365 |
| Wilacy | 2,162,3971 | 2,250,388\| | * 8.081 |
| Williamson | 32,344,520 | 31,012,880 | 1,331,640 |
| Wilson | 10,254,470 | 10,203,085 | 51,395 |
| Winkler | 1.085, 7731 | 1,230,074 | *144,601 |
| Wise | 14,010,450 | 12.943,220 | 1,067,190 |
| Wood | $8,720.246$ | 8.064,994 | 655,202 |
| Yoakum | 1.412.232 | 1,414.311 | *2,079 |
| Young | 8,179,578) | 7.606.597] | 572.981 |
| Yapata | 1,156,818 | $1.210,0331$ | *53 215 |
| Zavalla | 5,427,8051 | 4,645, 269 \| | 732,536 |

## *Decrease. $\dagger$ Unofficial.

Note.-Assessment statistics in this table include the figures for new counties created in 1913 in the totals of the counties from which their territorv was taken. (a) Assessment figures for Bandera County include values of 184 square miles now included in the new countr of Real. (b) Includes 1,052 square miles taken to form a part of Jim Hoge County. (c) Includes $\$ 88$ square miles taken to form Dunn County. (d) Includes 471 square miles taken to form a portion of Real County. (e) Includes $4 \overline{5}$ square miles taken to form a part of Real County. (f) For 1912, includes 1,012 square miles taken to form Kleberz County.

## AREA OF COLNTIES:

ACRES ASSESSED

| Counties- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Anderson | 1,060 | 744.417] | 736,893 | 00 | \$5.61 |
| Andrews | 1,591 | 669.938 | 653.969 | 2.40 | 2.25 |
| Ange ina | 880 | 568.188 | 573,152 | 7.50 | 5.89 |
| Aransas | 25 | 152. 483 | 155,866 | 7.05 | 6.31 |
| Archer | 060 | 383,789 | 530,039 | 7.90 | 7.85 |
| Armstrong | 870 | 608.4171 | 579.918 | 4.03 | 5.20 |
| Atascosa | 1,182 | 760,022 | 835,421 | 110.21 | 6.89 |
| Austin | 712 | 396,241 | 39\%,321 | 11.44 | 11.22 |
| Bailey | 816 | 13.122) | 8.191 | 4.43 | 4.82 |
| (a) Bandera | 823 | 621.3591 | 620.702 | 2.92 | 2.73 |
| Bastrop | 881 | 586,511 | 598,575 | 9.56 | $8.0{ }^{\circ}$ |
| Eaylor | 9571 | 552.9531 | 555,410 | 6.74 | 5.67 |
| Bee | 8751 | 545, 2381 | 538,433 | 7.69 | 6.79 |
| Bell | 11.0911 | 714,588 | 721.277 | 1917 | 19.50 |
| Bexar | 1.288] | 748.196 | 747,254 | 19.32 | 18.79 |
| Blanco | 7621 | 445,852 | 425,473 | 4.37 | 4.58 |
| Borden | 900 | 588,5991 | 542,036 | 2.17 | 2.36 |
| Bosque | 1,041 | 610,301 | 503,032 | 10.50 | 12.52 |
| Bowie | 12. | 592,119 | 608,185 | 5.94 | 7.11 |
| Brazoriz | 1.438 | 912,960 | 886,373 | 13, 29 | 12.80 |
| Brazos | 510 | 369,357 | 368,001 | 9.18 | 8.25 |
| Brewster | 5,006 | 3,249,696 | 3,060,986 | 1.66 | 1.06 |
| Briscoe | 850 | 576,500 | 574,586 | 3.40 | 3.46 |
| (b) Brooks | ${ }^{912}$ | ${ }^{633} .813$ | 1,376,147 | 3.5 | 283 |
| Brow | 911 | 595,936 | 594,161 | 7.02 | 7.62 |
| Burleson | 677 | 335,246 | 435,827 | 1006 | 9.07 |
| Burnet | 1,010 | 534,780 | 638,374 | 6.17 | 5.48 |
| Caldereal | 5301 | 356,871 | 359,84 |  | 8 |

## Aren of Countles-Continued.

| Counties |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Calho | $892$ |  | 300,048 |  |  |
| Callahan | $882$ | 564.024 | 584,630 $875.490$ | \$5.78 | 42 |
| Camp | 217 | 123,070 | 123.596 |  | 6 |
| Carson | 860 | 573.807 | 580.037 |  |  |
| Cass | 945 | 641,0371 | 666,112 | 4.35 | 3.04 |
| Castr | 870 | 585,961\| | 591.781 |  | 76 |
| Chambe | ${ }_{990}^{648}$ | 393.901 | 387,268 |  |  |
| Cherokee | ${ }_{650} 990$ | ${ }^{673.24} 5$ | 6430,522 | 4.7 | 4.64 |
| C | 250 |  |  |  |  |
| C | 870 |  | 251.034 |  | 1.50 |
| Coke | 850 | ${ }^{666,158}$ | 590.501 | 3. | 3.43 |
| Colem | 1,3021 | 792.979 | 787, 874 |  |  |
| Collin | ${ }_{867}^{828}$ | 568,729 574,699 | 568,742 |  | 4.36 |
| Colorad | 948 | 609 | 621, |  | 10.75 |
| Comal |  | 352, 638 | 352,090 | 7 | 77 |
| Coman |  | 59.7176 | 620.0 |  | . 42 |
| Concho | 000 | ${ }_{564}^{617.854}$ | ${ }_{564}^{61680}$ |  |  |
| Cook | 1,000 | ${ }_{664}^{5641}$ | 564.088 |  |  |
| Corte |  | 586. | 588, |  |  |
| Crane | 792 | 239,440 | 283,1 |  | 50 |
| Crocke |  | , 389,20 | 1,355 |  |  |
| Crosby | 984 | 566,518 |  |  |  |
| Culbers | 3,780 | 2,2966 | $[2,203$ |  |  |
| Dallam <br> Dallas | ${ }^{1.463} 9$ | 565, | 565 |  |  |
|  | 900. | 587. 138 | 577.167 | 3. | 5 |
| Deaf S | 1,477 |  |  |  |  |
| Delta | ${ }^{266}$ | 176 | 176 |  |  |
| Denton | 865 | 648.540 | 613.35 | 16 |  |
| Dewitt |  | 589 | ${ }_{6} 63$. |  |  |
| Dickens | 918 | 589,475 |  | 4.04 | ${ }^{58}$ |
| ${ }_{\text {Dimmit }}$ | 1.678 | 543,331 | 58, |  | 3.74 |
| Dunn |  |  |  |  |  |
| (c) Duval | 952 | 1.273. | 1,193,614 |  | 2.00 |
| Eastlan | ${ }_{976}^{947}$ |  |  | 2.9 | 2.92 |
| (d) Edwa | 1.931 | 1,731.656 | 1.616 | 1.53 |  |
| Ellis | 6 | 600,727 | 600.694 |  |  |
| El Paso | , | - | 2,797, | 2.67 |  |
| rath | 1,110 |  | ${ }_{5}^{675}$ |  |  |
| Falls | ${ }_{944}^{944}$ | $513,3$ |  |  |  |
| Fannin | 940 |  | $\begin{aligned} & 574 \\ & 600 \end{aligned}$ |  |  |
| yette |  | 623,361 | 578,617 |  | 41 |
| Floyd | 1,036 | 621, |  | 7.01 | 6.71 |
| ard | 636 | 453,563 | 455.179 | 5.92 |  |
| Fort Bend | 897 | 550,8 | 557,527 |  |  |
| FTanklin |  |  | 301.859 599 | 9.5 |  |
| Freesto | 1,9474 | $\begin{gathered} 68,703 \\ 707,249 \end{gathered}$ | $599,$ | ${ }^{5} 5$ |  |
| Grin | 1,590 | 929, 303 | 930.218 | 2.4 | 17 |
| Galvesto | 438 | 238,407 | 237.22 |  |  |
| Garza |  | 575,808 | 570. |  | 1 |
| Gillespi | 1,140 | 648,849 | 634,337 | 4. | 1.80 |
| Glassco |  | 571.365 | 570 |  | 281 |
| Goliad | 817 | 598.768 | 522 | 9. |  |
| Gonzal | 1,079 86 | - 654,503 | 654 590 | 2 | ${ }_{69}$ |
| Gray | ${ }^{8}, 012$ |  |  |  |  |
| Grays | 1,012 | ${ }_{273.550}$ | 606.814 173,509 | 5.4 | 7.73 |
| Grimes | 770 | 507, | 503,454 | 9. | 17 |
| Guadalu | 717 |  |  | 8. |  |
| Hale | 1,036 | 553.351 | 539.422 | 7.13 | . 15 |
| Hall | 85 | 569.316 | 570,041 | 5.1 | 15 |
| Hami | 858 | 518.781 | 518.654 | 12. | 3.00 |
| Hansford | 860 |  | 578.812 | 20 | 2.00 |
| Hard | 534 | 433,799 | 430 | 9.35 | 34 |
| Hardis | ${ }_{1,761}$ | 1,114,159 | -143,190 | 2.25 | 20.50 |
| Earrison | 873 | 580 |  | 6.8 | 4.42 |
| Hart |  | ${ }^{977.339}$ | 983.7 | 3.15 | 99 |
| Haskell | 843 | 575.450 | 574.964 |  | ${ }_{9}^{9.45}$ |
| Hays ${ }_{\text {Homphil }}$ |  | 431,428 | 532,05 | . 3 |  |
| Henderson | 940 | 607, 122 | 606.148 | 6.49 |  |
| Hidals | 583 | , 169 | 125 | 9.00 | 71 |
|  |  |  |  |  |  |

Aren of Countlem-Continued.

| Counties- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hoc | 982 | 306,636 | 306.730 | 2.961 |  |
| Hood | 436 | ${ }_{499}^{276,289}$ | $268.3 \%$ | 7.43 | 6.41 |
| Houston | 192 | ${ }^{401.867}$ | 801.038 | \% 6.74 |  |
| Howard |  | 533,754 |  |  |  |
| Hunt | 888 | 559, 225 | 556; 735 | x. | 86 |
| Hutchins | 8501 | 575.859 | 577. |  | 3 |
| Irion | 900 | 629,8 |  |  |  |
| Jack Jackson | ${ }_{888}^{858}$ | ${ }_{5}^{576.708}$ | 589, 873 | 1 | 72 |
| Jasper | 977 | 57.50 | 59.519 | 1.7 |  |
| Jeff D | 1.92 | 1,353,994 | . 392.631 | 1.94 | . 48 |
| Jefferso |  | 591,681 | 575,3931 | 17 | 1.94 |
| Jim Ho | 099 | 696, |  | 2.74 |  |
| Jim Well | 856 | ${ }^{487} .322$ | 548.51 | 7.38 | 6.99 |
| Johnson | 940 | 457, 836 | 463.799 | 21.16 | 20.69 |
| Jones <br> Kamee | ${ }_{7401} 901$ | $\begin{aligned} & 588,491 \\ & 461,010 \end{aligned}$ | 598.109 | 120.70 |  |
| Kaufman | 932 | 599,953 | 517.575 |  | 14 |
| Kendal | $\frac{613}{777}$ | 401,24 | $492.79$ | 273 | 4.74 |
| Kent <br> (e) K | 1,175 | $\begin{aligned} & 564, \mathrm{I} 26 \\ & 721,090 \end{aligned}$ | $\begin{aligned} & 476,767 \\ & 7.699 \end{aligned}$ | 2.63 2.69 | 3.74 |
| Kimble | ,302 | 78.133 | 760.55 |  |  |
| King | 928 | 585.3341 | 50,847 | 20 | 0 |
| Kinney | 1.2691 | 845.236 | 845,416 |  | . 39 |
| Klebert | 1,012 | ${ }^{544.892}$ |  | 8.13 |  |
| Kioz | 947 | 548,696 | 539.268 | 6.51 | 6.37 |
| Lamar |  | 583.639 | 5.5 .838 |  |  |
| Lampas | ${ }^{95}$ | 418 |  | 4.18 | 88 |
| La Sall | ,707\| | 930,018 | 888.69 | 2. | 2.60 |
| Lavaca | 992 | 0066033 | 6181.64 | 17.10 |  |
| Lee | ¢ | 398.646 | 401.081 |  | . 19 |
| Leon | 1.066 | ${ }^{177} 7338$ | 718.699 | 5. | 3.35 |
| Liberty | 1,162 | 771.200 | 779,435 | 6.3 | - |
| Limeston | - | 585,806 | ${ }^{582} .120$ |  |  |
| Lipscomb | 850 | 573,930 | 588.475 |  |  |
| Live Oak | 1,123 | 659 | 671.914 |  | 4.6) |
| Llano | 97\% | 675.768 | 677.127 | 5.00 | 50 |
| Loving | ${ }_{882}^{635}$ | $\begin{aligned} & 132.834 \\ & 578,254 \end{aligned}$ | $\frac{18810153}{575}$ | ${ }_{5}^{2.961}$ | 02 |
|  | 821 | 588.834 | 52. 2084 | 3.5 | 3.52 |
| Madison | 488 | 306, 857 | 351.272 | 7.15 | 5.58 |
| Mation | 381 | 274.258 | 279.706 | 5.3 |  |
| artin | 90\%- | 521,614 | 525,173 | 20 |  |
| Mason | A | 555,992 | 565.3 | 4.89 | 4.82 |
| Matagorda | 1,135 | 697.203 | 788.34 |  |  |
| Maverick | 1.332 | 763,894 | $793.66{ }^{2}$ | 3.41 | 3.15 |
| McCulloch | 1,110 | 650.230 | 680.017 |  |  |
| Mctennan | 1,180 | - 655.325 | ${ }_{741.955}^{6 \% 1.53}$ | 2.39 | 16 |
| Medina | 1,284 | 88.349 | 83.183 | 6.01 | 90 |
| Menard |  | 557.6 | 556.493 |  |  |
| Midtand | 972 | 575.818 | 54. | 56 | 72 |
| Milam | 1,044 | 686,543 | 652.366 | 0 |  |
| Mills | ${ }^{604}$ | 481.15 | 493.00k | 7.50 |  |
| Mitchel | ${ }_{986}^{807}$ | 587.589 | 579,946 | 5. | 5.85 |
| Montgome | 1,066 | 685.93 | 606.355 | 6.98 | 6.98 |
| Moore |  | 578.691 | 536.499 | 3.13 |  |
| Morris | 278 | 16.54 | 1 ch, | 3.2 | .03 |
| Motley | 994 | ${ }_{598}^{635} 5$ | 639. | ${ }^{4.33}$ | 3.91 |
| Nacogdoch Navaro |  | 598.581 | 639,58 |  | 5.12 |
| Newton | ${ }^{1} 903$ | 481.021 | 624.88 | 6.87 | 73 |
| Nolan |  | 481.021 | 548.2 | 5.57 | - |
| (f) Nuecei | 1.103 | 535.3791 | 1.059 .590 | 15.8 | 8.03 |
| Ochiltree | 364 | 584.113 | 577.72 | $\underline{0} .03$ | 207 |
| Oldham |  | 957.851 | 957.475 | 1.85 |  |
| Orange | 392 | 242,487 | 237.596 | 8.8 | 0 |
| Palo Pinto .... | ${ }_{814}^{971}$ | 600.83 |  | 6.21 | \% |
| Parker | 882 | 576,558 | 571.544 | 10.77 | 2. 28 |
| Parmer | 373 |  | 562.702 |  | 6.15 |
| Pecos |  | 2,78,018 | , 709 | 1.94 | 1.84 |
| Polk | , 110 | 733.892 | ${ }^{588} .044$ | 6.00 | 4.66 |
| Potter | 87 | ${ }^{572} 1.153$ | 595,413 | 397 | 4.17 |
| ${ }_{\text {Presidio }}$ |  | 2,077,066 |  | 1.41 | 42 |
| Randall |  | 578,920 | 576,498 | 4.92 | 5.59 |
|  | 1,190 | 544,170 | 553,776 | 1.83 | 1.61 |

## Area of Counties-Continued.

| Counties |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Red | 061 | 669,472 | 674,623\| | 59. |  |
| Reeves | 2,610 | 1,655,2 | 1,618,978 | 2 | 50 |
| Refugio | 802 | 513,322 | 513,737 | 5. | 4.51 |
| Roberts |  | 582,964 | 581,318 | 2.4 | 2.27 |
| Robertson | 913 | $560,869$. | 543, 646 | 8.4 | 7.50 |
| Rockwall | 171 | 95,703 | 95,023 | 29.64 | 26.89 |
| Runnels | 1,073 | 647,659 | 860,411 | 8.05 | 4.86 |
| Rusk | 915 | 636,679 | 616,354 | 4.29 | 4.28 |
| Sabine | 577 | 386,722 | 394,995 | 8.5 | 8.70 |
| gan Argustine | 570 | 390,831 | 370,874 | 9.73 | 7.25 |
| San Jacinto | 637 | 416,199 | 415.739 | 5.51 | 4.98 |
| Gan Patri | 700 | 421,626 | 427,413 | 9.7 | 8.58 |
| San Saba | 1,150 | 706,339 725,89 | 797,924 762,310 | 7.10 264 | ${ }^{6.77}$ |
| Scurry |  | 573, 108 | 586,820 | 5.89 | 5.81 |
| Ghackelf | 926 | 573,530 | 588,777 | 3.91 | 3.62 |
| Shelby | 814 | 566,0631 | 539,290 | 7.17 | 7.06 |
| Sherraan | 850 | 590,089 | 620,464 | 3.78 | 3.90 |
| Smith | 984 | 609,322 | 606,317 | 7.31 | 5.97 |
| Somervell | 200 | 112,987 | 109,088 | 7.1 | 7.63 |
| Starr | ,23 | 809,312 | 789,961 |  | 1.60 |
| Stephens | 928 | 587,971 | 587,484 | 5.50 | 5.54 |
| Sterling | 821 | 589, 129 | 589,764 | 2.00 | 2.00 |
| Stonewal | 777 | 582,442 | 576,2 | 4.70 | 5.30 |
| Sutton | 1,517 | 917,746 | 903,604 | 1.60 | 1.65 |
| Swisher |  | 580,112 | 568,862 | 5.13 | 5.17 |
| Tarrant |  | 529,209 | 538,778 |  | 30.90 |
| Taylor | 900 | 567.544 | 566,901 | 8.25 | 7.38 |
| Terrell | 2,776 | ,322, | 1,271, |  | 4 |
| Terry |  | 552,264 | 556.763 | 2.60 | 2.77 |
| Throckm | 821 | 514,171 | 531.113 | 6.33 | 5.35 |
| Titus | 420 | 271,882 | 270 | 7.7 | 7.77 |
| Tom G | 1,363 | 930,268 | 912, | 3 | 3.49 |
| Travis | 1.036 | 653,241 | 653,655 | 18.00 | 17.75 |
| Trinity | 704 | 453,001 | 452,247 | 6.99 | 6.37 |
| Tyler | 925 | 618,780. | 609 , | 4.04 | 4.42 |
| Opshur | 587 | 376,378 | 372,955 | 7.12 | 6.35 |
| Upton | 1,067 | 708,299. | 708,222 | 2.11 | 2.12 |
| Uvalde | 1,579 | 935,819 | 946,326 | 3.69 | 3.28 |
| Val Verde | 3,034 | 1,897,800 | 1,931,080 | 1. | 1.34 |
| Van Zandt | 877 | 557,375 | 547.416 | 8.90 | 8.18 |
| Victoria | 883 | 562,955 | 561,474 | 10.34 | 7.08 |
| Walker | 754 | 508,736 | 507.014 | 5.81 | 5.54 |
| Waller | 510 | 341,363 | 326,337 | 8.20 | 8.25 |
| Ward | 858 | 502,837 | 452,363 | 400 | 3.10 |
| Washington | 568 | 384, 786 | 381,789 | 14.73 | 14.69 |
| Webb | 3.421 | 2,139,553 | 2,124,103 | 1.35 | 1.33 |
| Wharton | 1,137 | 706,287 | 710,603 | 13.39 | 13.15 |
| Wheeler | 851 | 573,653 | 570,038 | 3.51 | 3.38 |
| Wichita | 606 | 391,105 | 388,066 | 17.00 | 14.00 |
| Wilbarger | 932 | 615,709 | 616,257 | 10.56 | 1.07 |
| Willacy | 1,850 | 936,315 | 940,847 | 1.29 | 1.34 |
| Williamson | 1,169 | 716,756 | 78,870 | 26.20 | 31.50 |
| Wilson | 784 | 522,988 | 517,067 | 11.15 | 10.91 |
| Winkler | 808 | 486,994 | 501,183 | 1.75 | 1.05 |
| Wise | 843 | 592,144 | 589,207 | 11.11 | 11. 58 |
| Wood | 688 | 416,364 | 421,603 | 2. 04 | 7.5 |
| Yoakum | 40 | 497,848 | 506,888 | 215 | 2.15 |
| Young |  | 572,239 | 572,678 | 8.15 | 7.32 |
| Zapata |  | 752,897 | 811,396 | 1.12 | 1.13 |
| Zavalla ... | 1,328\| | 890,3481 | 887,995 | 4.301 | ? 60 |

The acres rendered in 1913 for F1 Paso and Ia salle Counties is unofficial.

Note-Assessment figures for 1912 and for 1913, unless otherwise indicated, include assessments of new counties in the totals of counties from which they were created. Areas as given are correct. (a) One hundred and elghty-four square miles taken for Real County; (b) 1.052 square miles taken for Jim Hogg County; (c) 888 square miles taken for Dunn County and 47 square miles taken for Jim Hogg County; (d) 471 square miles taken for Real County; (e) 45 square miles, now a part of Real County.

In 190' Texas ranked fourth among the States of the Union in the production of refined petrotequmER

BONDED INDERTEDNESS
OF TEXAS COUNTIES
(June 30, 1913.)

| Counties- | Bonded debt. | $\begin{aligned} & \text { Interest } \\ & \text { and sink- } \\ & \text { ing fund } \end{aligned}$ |
| :---: | :---: | :---: |
| Anderson | \$294,000.00 | \$4,663.41 |
| Andrews | 8,000.00 | 1,594.51 |
| $\begin{aligned} & \text { Angelina } \\ & \text { Aransas } \end{aligned}$ | 30,000,00 | 10,443,40 |
| Archer | 25,000.00 | 1,160.10 |
| Armstrong | 60,000.00 | 2,406.77 |
| Atascosa | 110,000,00 | 11,005.06 |
| Austin (.... | 176,000.00 | 19,093.60 |
| Bailey (un.) |  |  |
| Bandera Bastrop | 44,975.00 | 1,865.23 |
| Baylor | 115,403.00 | 4,950.89 |
| Bee | 128,600.00 | 1.504.65 |
| Bell | 111,840.00 | 25,225.03 |
| Bexar | 1,305,500.00 | 249,602.59 |
| Blanco Borden | 8, 8 ,200.00 | 5,702.56 |
| Bosque | 15,900.00 | 5,702.57 |
| Bowie. | 283,000.00 | 29.993.49 |
| Brazoria | 182,300.00 | 12,751.75 |
| Brazos ${ }^{\text {Brewster }}$ |  | 979.79 |
| Briscoe | 49,00.00 | 979.19 |
| Brooks |  |  |
| Brown | 156,000.00 | 11,339.51 |
| Burleson <br> Burnet | 00 | 88 |
| Caldwell | 288,500.00 | 13,031.86 |
| Calhoun | 71,000.00 | 14,178.54 |
| Callahan | 11,293.76 | 2,768.74 |
| Cameron | 14,000.00 | 87171 |
| Camp | 5,900.00 | 1,122,84 |
| Carson | 34,000.00 | 2,401.42 |
| $\begin{aligned} & \text { Cass } \\ & \text { Cast } \end{aligned}$ | 28,000.00 |  |
| Chambers | 18,000.00 | 6,165.74 |
| Cherokee |  |  |
| Childress | 24,000.00 | 4,369.57 |
| Cochran (un.) |  |  |
| Coke .......... | 23,000,00 | 2.241 .34 |
| Coleman | 3,000.00 | 59.07 |
| Collin |  |  |
| Collingsworth | 11,000.00 | 1,540.17 |
| Colorado | 58,000.00 | 23,903.90 |
| Comal | 55,000.00 | 6,000.00 |
| Comanche | 39,000.00 | 845.42 |
| Concho | 28,000.00 | 1,528.49 |
| Cooke | 226,990.00 | 15,944.21 |
| Coryell | 38,000.00 | 182.05 |
| Cottle | 4,000.00 | 258.35 |
| Crockett | 30,000.00 | 2,574.24 |
| Crosby |  |  |
| Craberson |  |  |
| Dallam |  |  |
| Dallas | 1,876,650.00 | 18,043.51 |
| Dawson ... |  | 3,485.61 |
| Delta . | 23,000.00 | 2,576.42 |
| Denton | 191,700.00 | 4,306.59 |
| DeWitt | $67,498.00$ | 11,033.25 |
| Dickens | 30,500.00 | 12,983.39 |
| Dimmit | 65,400.00 | 8,391.71 |
| Donley | 15,000.00 | 5,875.66 |
| Duval |  |  |
| Eastland | 39,000.00 | 2,000.00 |
| Ector | 21,950,00 | 4,549.62 |
| Edwards | 23,700.00 | 8,247.46 |
| Ellis | 965,500.00 | 35,856.02 |
| El Paso | 345,000.00 | 33,133.44 |
| Erath | 30,000.00 | 15,028.93 |
| Falls |  |  |
| Fannin |  |  |
| Fayette | 102,500.00 | 21,482.55 |
| Fisber Floyd | 28,399.00 | 17,551.38 |
| Foard | 83,000.00 | 10,339.29 |
| Fort Bend | 375,000.00 | 53;036.70 |
| Franklin |  |  |
| Freestone | $112,000.00 .$ |  |
| Frio | 113,963.00 | 12.964.64 |

\begin{tabular}{|c|c|c|}
\hline Counties- \& \[
\begin{gathered}
\text { Bonded } \\
\text { debt. }
\end{gathered}
\] \& Interest
and sink
ing fund. \\
\hline \[
\begin{gathered}
\text { Gaines } \\
\text { Canvest }
\end{gathered}
\] \&  \& \[
{ }_{1}{ }_{132,061.52}^{715.79}
\] \\
\hline Garza \& \& \\
\hline Glasseock \& 32.00.00 \& 4,726.98 \\
\hline Goliad \& \({ }^{40} 10.000 .00\) \& 6, 6.34 .65 \\
\hline \({ }_{\text {Gray }}\) \& 2f,000.00 \& \({ }_{2,361,02}\) \\
\hline Grayson \& 621,250.00 \& 5,800.56 \\
\hline Gregs \& 30,00 \& \\
\hline Guadalupe \& 242,000.00 \& 44,231.20 \\
\hline Hale \& \begin{tabular}{|c}
82,00300 \\
\(18,50.00\)
\end{tabular} \& 9,950.00 \\
\hline Hamilön \& \& - 2.2 \\
\hline Hansford \& \& \\
\hline Hardeman \& 74,000.00 \& \({ }_{35,29911}\) \\
\hline Harris \& 2,008,000.00 \&  \\
\hline \& \& 5,362.92 \\
\hline Haskell \& 41,900.00 \& 3,888.31 \\
\hline Hass \& 142,000.00 \& - 34.699 .12 \\
\hline Henderson \& \& \\
\hline Hidalso \& 175,500.00 \& \({ }_{68,731.94}^{24,055}\) \\
\hline Hockley (un.) \& \& \\
\hline Hood \& \({ }^{52} 5\) \& \({ }^{8} 8.7178 .48\) \\
\hline Houston \& \& \\
\hline Howard \& 250,000.00 \& 11.898 .15 \\
\hline Hurtchinson \& \& \\
\hline Irion \& 7,50.00 \& 3,302 18 \\
\hline \({ }_{\text {Jack }}\) Jack \& \% 7 \& 1977\%32 \\
\hline \& 13, \& 19,0.32 \\
\hline Jeff Davis \& 85620000 \& 155138.96 \\
\hline Jim Wells \& 806,300.00 \& 165,138.96 \\
\hline Johnson \& 00 \& 44,044,33 \\
\hline Jones \& 125,338.70 \& 8,896.26 \\
\hline Eaufman \& \& \\
\hline Kent \& 3, \({ }^{\text {3,000000 }}\) \& \\
\hline Kert \& 13,950.00 \& 377.69 \\
\hline \& \& \\
\hline Kinney \& 36.000.00 \& 3,533.12 \\
\hline Lamar \& 59,000.00 \& 3144 \\
\hline Lamb \& \& \\
\hline \({ }^{\text {La }}\) \& \({ }_{4}^{38,925.000}\) \& 12,53.10 \\
\hline Lataca \& \({ }^{6,6,000000}\) \& \({ }^{1731.35}\) \\
\hline Leen \& 27,000.00 \& \({ }^{1,419.98}\) \\
\hline Limesty \& \& e9,50 \\
\hline Lipscomb \& 36,000.00 \& 1,689.50 \\
\hline Live Oak \& 15930000 \& 1,138.53 \\
\hline Loving \& \& \\
\hline Lubbock \& 30,000.00 \& 7,3i5.56 \\
\hline Madison \& \& \\
\hline Marion \& 234,000.00 \& \\
\hline Mason \& \(40,000.08\)

000000 \& <br>
\hline Matagordà \& 194,997:00 \& 38,735.74 <br>
\hline Maverick \& 43,602.00 \& <br>
\hline Mcculloch \& ${ }^{144,0000.00}$ \& 14,33 <br>
\hline Mclennan \& 318,000.00 \& <br>
\hline Medina \& 58,500.00 \& 26,330.80 <br>
\hline Menard \& 20,500.00 \& ${ }^{3,39507}$ <br>
\hline Milam \& 105,872.50 \& 18,439.28 <br>
\hline Mills \& ${ }^{80,400.00}$ \& ${ }^{2.377 .28}$ <br>
\hline Montag \& ${ }_{76,000} 80$ \& 1,42.50 <br>
\hline Montrgomers \& \& <br>
\hline Matisoj: \& \& <br>
\hline
\end{tabular}

| Counties- | Bonded debt. | Interest and sink ing fund. |
| :---: | :---: | :---: |
| Motley | ${ }^{50.500 .000}$ |  |
| $\stackrel{\text { Nacogdo }}{\text { Navarro }}$ | - 90.000 .000 |  |
| On |  |  |
| Nolan | 100, | 50 |
|  |  |  |
|  |  |  |
| am |  |  |
| $\stackrel{\text { Orange }}{\text { Palo }}$ | 132733000 72,00000 | ${ }_{88,915.33}^{37.29 .24}$ |
|  | \% |  |
| mer |  |  |
| Pecos | 78,300.09 | 16.01 |
|  |  |  |
| sid | 11,378, | ${ }_{1}^{1950.09}$ |
| Rains |  |  |
| Randa | ¢ |  |
| Red |  |  |
| Reeres | 2,500.00 | 6,007.53 |
| Refukio | - ${ }^{51,900000}$ | 1.998.65 |
| Robertson | 63,335.93 | 24,887.14 |
| minels | 52,04, 00 |  |
|  |  |  |
| Sabine |  |  |
| $n$ Jacint |  |  |
| San Patrici | 130,000.00 | 7,40, 17 |
| Schleicher | 2,000.00 | 68i 7 |
| Scurry | 87.500.00 | 8,3n0.36 |
| Staelby | 3,8817.38 |  |
|  |  |  |
| Smith | 194.32 | 5.718.04 |
| ${ }_{\text {Start }}$ | ${ }^{2,5000}$ | ${ }^{3} 1$ |
| ephens | ${ }^{21,000000}$ | ${ }_{6}^{1,429.90}$ |
| cnewali | 12,240,60 | $\underset{9,619.25}{6,5}$ |
| Sutton | ${ }^{26,000} 0$ | 5,614.35 |
| Tarrant |  | 49,053.17 |
| Taylor | ${ }^{150} 000$ |  |
|  | 25,00 | . 66 |
| Throckmorto |  |  |
| Titus | 9,500.00 | 103.08 |
| m ${ }^{\text {G }}$ | 96,000.00\| | ${ }_{31}{ }^{310.535}$ |
| Trinity | 60,000.00 |  |
| Upah | 33,100.00 | 5,687.64 |
|  |  |  |
|  | 15,000.0 | ,008.34 |
| an Zar |  |  |
| Victoria | 114,700.00 | 27.842,62 |
| Waller |  |  |
| Ward | $4,50.00$ | 386.91 |
| ${ }_{\text {Webb }}^{\text {Washin }}$ |  |  |
| Wbarton | 75,550.00 | ${ }^{3,578.71}$ |
| Wheeler |  | 4.450.00 |
|  | ${ }_{81,482}$ |  |
| -Willacy |  | 3.932.37 |
| Williamson | 399,500.00 | 29,288.90 |
| Winkler |  |  |
| Wise | 70,000.00 | ${ }^{1,403.03}$ |
|  |  |  |
| Young |  |  |
| Zapata |  | ${ }^{\text {2 }} 7230.5815$ |
| *Willacs County owes its pryportion of bors ofed debt of Cameronand Thich counties it originally was a portionThe proper proportion of this debt has not been delermined. |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Bonded Indebtednexs-Continuetr.

Note-Data relative to the bonded indebtedness of a number of counties was not available at the time this report was compiled (Nov. 1T).

## BONDED INDEBTEDNESS OF CITIES AND TOWNS

| City or Town- | Bonded debt. | Interest nund sink- ing fund. |
| :---: | :---: | :---: |
| Abilene | \$182,620.00 | \$27,472,46 |
| Alice | 24,(00).00] | 3,999.16 |
| Alvarado | 18,000.0) | 1,110.08 |
| Amarillo | 215,900.0\% | 54, 503.41 |
| Anson | 43,000.00 | 5,403.93 |
| Aransas Pass | 10,000.)0 | $13 i .37$ |
| Arlington | 2,003.0) | 2,748.5 |
| Athens | 30,000.00 | 5.278.93 |
| Atlanta | 20.005 .09 | 2.872 .07 |
| Baird | $6,515.00$ | $3 \mathrm{3}+33$ |
| Ballinger | $60,000.00$ | 10,539.01 |
| Bartlett | 37.51000) | 0.973 .42 |
| Beaumont | 1,072, 000.00 | $23 \mathrm{Sa}, 00.73$ |
| Reeville | 27,003.00 | 1,565.80 |
| Big Spring | $50,(000.09$ |  |
| Blossom Poenne |  |  |
| Bonham | 287.400 .09 | 12.306 .38 |
| Bowie | 41, $50 \mathrm{~N}, 0$ ) | $153: 3.35$ |
| Brando |  |  |
| Prenham | 62.25 .0 \% | 415.90 |
| Browawood | 138,0) 0.00 | 28,211.22 |
| Burnet | 1,510.009 | 245.31 |
| Caldwell | $21,0030]$ | 4,891.50 |
| Calvert | 33.50000 | 627.37 |
| Cameron | 33,000.03 | 10,472. ${ }^{2}$ |
| Canadian ${ }_{\text {Canyon }}$ | 10,000.00 | 8.7.7.17 $\mathbf{2 . 1 6 5 . 4 1}$ |
| $\underset{\text { Canyon City }}{\text { Celeste }}$ | 25.000 .00 | 2.165.41 |
| Celina | 14,000.00 | 2,052.14 |
| Center | $22.090 .0)$ | 2,595.63 |
| Cisco | 34.97).03 | 4, 4 , 90.43 |
| crarendon | 23,0.0.00 | 486.70 |
| Chardsville | 64.092. 6 , | 5.9:7.33 |
| Cithmrne | 37, 9\%6.03 | 51.033 .2 d |
| Clifton | 10,003.00 | 6.001 .87 |
| Coleman | 96, $\times 0.00$ | 12,844.f) |
| Colorado |  |  |
| Columbis Comanche | $15,50.000$ | $\begin{gathered} 5,636,34 \\ 10961.93 \end{gathered}$ |
| Commerce | 34.070 .00 | 10.158.05 |
| Cooper | 23,100.09 | 4,141.97 |
| Corpus Christı | 53, 3 (0) 0.9 | 29.30 .20 |
| Crouktt | $26.0 \times 0.03$ | 2.9.4if.90 |
| Cuero | 82,900.00 | 15.767 .25 |
| Dalhart | 33.500.00 | 7,645.27 |
| Dallas | 5,343.700.00 | 732,9\%0.08 |
| Dawson |  |  |
| Decatur | 24.250 .00 | 1.86 .10 |
| De Leon | 19.590.01 | 2,747.61 |
| Denton | 66,047. 55 | 13,397.33 |
| Devine |  |  |
| Dublin <br> Eagle Lake | $\begin{aligned} & 53,000.00 \\ & 15,000.00 \end{aligned}$ | $\begin{aligned} & 5,301.16 \\ & 2,785.34 \end{aligned}$ |
| Eagle Pass |  |  |
| Ector |  |  |
| El Campo | 10,000.09 | 3.376.01 |
| Electra |  |  |
| Elgin | 33.500 .00 | 4,135.33 |
| El Paso | 2.440,000.00 | 388.600.0. |
| Enloe |  |  |
| Ennis | 55,003.09 | 7.575.00 |
| Farmersville | 40,500.00 | 5,485.14 |
| Ferris |  |  |
| Floydada |  |  |
| Flatodia | 12,000.00 | 765.72 |
| Floresville | 34.00.00 | 4,994.91 |
| Forney | 11.400.001 | 426.08 |
| Gainesville | 245.007 .00 | 34.286 .20 |
| Gatesville | 15,000.00. | 712.85 |
| Georgetown | 55.000 .00 | 4,00:20 |
| Gilmer | 37,000.00 | 7,343.34 |
| Goldthwaite |  |  |
| Gpnaties R. | 35,500.00 | 1,047.58 |

Honded Indelitedness-Connuued.

| City or Town- | debt. Bonded | Interest ing fund. land siok- |
| :---: | :---: | :---: |
| $\overline{\text { Gordon } . . . . . . . . . . . . . . . . \mid . . . . . . . . . . . . . . . . . . . . . . . ~}$ |  |  |
| Graham | ; 15,000.00 | 191,301.85 |
| Granbury |  |  |
| Grand Prairie |  |  |
| Grand Suline | $11.500,00$ | 3,917.72 |
| Grand liew | $13.00 \times 1.03$ | 1.000 .00 |
| Graperer | 15.003 .00 | 1,290.18 |
| Greenville | 184.792.00 | 35.059 .25 |
| Hallettaville | 18.45) 00 | 11.370.69 |
| Mamiton | $23,000.00$ | 2,444.90 |
| Hask il | 35.000 .00 | 949.26 |
| Hearne | 30,000.00 | 3,3\%8.91 |
| Hempstead | 2.000 .00 | 81.06 |
| Heerretta | 43.500 .00 | 1,687.35 |
| Hico erd | $42,000.00$ $19,570.00$ | 3,815.43 $6,389.82$ |
|  |  |  |
| Honer Gru | 55.003 .00 | 4.902.07 |
| Holston | 8,40.0n00 | 149,006.40 |
| Hubbard City | 25,200.00 | ¢,895.48 |
| $\begin{aligned} & \text { Huntsville } \\ & \text { Italy } \end{aligned}$ | 15.500 .00 | 3.256.90 |
| Jacksborn | 27,500,00 | 2.18) 88 |
| Jacksourille | 28.003.00 | 792.42 |
| Kanforn | 38,500.03 | 3,751.99 |
| Kennedy |  |  |
| Ladonia | 17,070.00 | 1.40 .76 |
| La Grarge | 24.003 .00 | 1.227. 3 |
| Laredo | 92.000 .091 | 36,666.99 |
| Longriew | 285,362.00 | 17.094 .55 |
| Lott | 14.000 .00 | 1,007.29 |
| I_ufkin | 50.303 .00 | 3,584.82 |
| Luling .o... | 10,000.00 | 1,855.52 |
| Marble Falls |  |  |
| Marin ${ }_{\text {Marshall }}$ | $87,500.00$ 551.000 .09 | 11,795.33 |
| Mart | 45,000.00 |  |
| MrGregor | 10,509,09 | 1,73.83 |
| McKinney | 96,503.00 | 21,753.14 |
| Memrhis | 20,000.00 | 3.727 .48 |
| Mercrdes ...................\|......................... |  |  |
| Miles | 20.1009 .09 | 1,337.00 |
| Milfar |  |  |
|  |  |  |
| Miveral Wells | 124.47.09 | 29.926.03 |
| Mount Pleamat | 38, $\times 10.09$ | 5.510.74 |
|  |  |  |
|  |  |  |
| New Bram Nocona | 67.009 .09 | 14,948.91 |
| Nocona | 17.509 .00 | 1.702.70 |
| Olney ${ }^{\text {Padurah }}$ | 12.500 .00 | 1.324 .93 |
| Paducah | 37.007 .07 | 2.8*6.63 |
| Palacios | 25.000 .00 | 679.19 |
| Palcstine | 102.007 .00 | 19383.71 |
| $\underset{\text { Paris }}{\text { Pearsal }}$ | 740,030.00 | 145,990.84 |
|  |  |  |
| Plano ... | 22.500 .09 | $6,150.88$ |
| Polstechnic | 45,000.00 | 4.727 .24 |
| Quanah | 41,500.00 | 5,245.97 |
| Rocl. dale | 15.500 .09 | 433.71 |
| Rockport | 30.000 .00 | 127.25 |
| Rockwall | 4.00700 | 74.15 |
| Pogers | 14.000 .90 | 1.400 .00 |
| Rosebud | 23.503 .00 | 3.950 .03 |
| Rosenberg | 2,501.00 | ${ }^{626.64}$ |
|  |  |  |
|  |  |  |
| Rusk |  | 2,48.3. |
| Sabinal |  |  |
| San Angclo | 199.000.001 | 38.221 .32 |
| San Antonio | 2,574.500.09 | 701.407 .38 |
| San Augustine | 23570.07 | 1.15 .15 |
| San Benito | 48.001000 | 273.74 |
| San Mareos | 57.007 .00 | 11,851.60 |
| Santa Anna | 22.50 mmo | 5101.93 |
| Schulenburg | 53.000 .03 | 2.0.3.68 |
| Seguin | $33,900.00$ | 12.311.51 |
| Seymour | 31,007.00 | 6,593.00 |
| Shiner ${ }_{\text {Smilh }}$ | 8,000.00 | 1.031.59 |
| Smithrille | 29,000.00 | 7,349.39 |


| City or Town- | debt. Bonded | $\begin{aligned} & \text { Interest } \\ & \text { ing fund. } \\ & \text { and sink- } \end{aligned}$ |
| :---: | :---: | :---: |
| Bnyd | 44,400.00 | \$ 6.010 .15 |
| Stamford | 56,000.00 | 10,6.2.76 |
| Stuphenville | 43,000.00 | 3,826.31 |
| Sweet water | 95,000.00 | 17.201.46 |
| Uvalde | 6,000.00 | 3,197.84 |
| Ven Alstyno | 27,375.00 | 2.115.16 |
| Vernon | 50.950 .00 | 9,49\%.89 |
| Victoria | 52.500 .00 | 20, 231.12 |
| Taslor | 114,401.00 | 20.408.30 |
| Temple | 455,500.00 | $52,250.72$ $45,902.60$ |
| Texariana | 306,000.00 | 45,902,60 |
| Thornton |  |  |
| Troup |  |  |
| Tyler | 2,454,500.00 | $\begin{array}{r} 29,764.19 \\ 483,284.23 \end{array}$ |
| Waco ....... Walnut Sprin | 2,454,500.00 |  |
| Warabachie | 156,200,00 | 4,493.11 |
| Weatherford | 86.999 .35 | 17,121.81 |
| West | 18,000.00 | 1.379.39 |
| Whitesboro | 24,000.00 | 5,119.41 |
| Whitewright | 28.500 .00 | 4,576.58 |
| Wills Point | 10.930.00 | 1,405.40 |
| Winnsboro | $33,000.00$ | 2,679.93 |
| Wortham | 8,000.00 | 7529.40 |
| Yoskum .... | 83,50.00 | 7,522.90 |

The above list includes all citics and towns reported to the State Contredur for the year 1913 up to Noy. 20.

## HAPID GROWTH OF

## INSURANCE IN TEXAS

The business of insurance, according to statistics issued by the Department of Banking and Insurance of Texas is furnishing the opportunities for investment of many millions of dollars and providing employment ior many men. Notwithstanding legislation alleged to be detrimental to other than home companies, there are many insurance companies from other States and foreign countries licensed to transact business in Texas. In 1913 there were:

Number.
Texas insurance companies and asso-
ciations …............................... 116
With headquarters in other States... 215
Foreign companies.
381


All Other Insurance.
Number
Companies.
Class-
Compan other
Mutual fire, hail. storm, etc.. other States
Fire gnd marine. other States.34
6

Fire and marine foreign...
Life, health. accident, other States. Asgessment

All Oher Insurince-Continued.


Fraterna!, etc. . . . . . . . . . . . . . . . . . . . . . 46


$$
\begin{aligned}
& \text { Total................................. } \\
& \text { tal insirance companies, }
\end{aligned}
$$

tions of all kinds licensed to trans
act business in Texas................ 384

## STATE AND NATIONALA

BINK STATISTICS
Late reports from the Texas Department of Insurance and Banking and the Controller of Currency, Washington, D. C., show Texas has 736 State banks and 73 bank and trust companies, making a total of 809 State institutions, and 486 National banks. The combined capital of all banks in the State, exclusive of private institutions, is $\$ 60,500,500$ and combined resources $\$ 355,539,993$.

Nationel Banks.

| $\begin{gathered} \text { No. } \\ 486 \end{gathered}$ | Nationsi Banks. |  |  |
| :---: | :---: | :---: | :---: |
|  | Capital. | Deposits. | Resources. |
|  | ,680,000 | \$129,992,525 | (221,993,7 |
| State Fanks. |  |  |  |
| 36 |  | [g. 9.) |  |
| 73. |  | \$ 45,969,123 | \$85,370,878 |
| Hank and |  |  |  |
| 73 | \$13,680,000 | $\$ 19,510,158$ | \$ 48,175,414 |
| 1,295 | \$65,550,500 | \$195,471,806 | \$35,539,990 |

## WORLD'S GIREATEST BANK.

The United States Treasury handled in actual caşh during the fiscal year ended June 30 , 1913, the sum of \$7,071,520,000, breaking all previous records and stamping the Treasury as the greatest banking institution in the world.

Reflecting the tremendous growth of the Government business this high record, including income, outgo and operations within the Treasury, exceeded the cash transactions of the previous year by $\$ 469,769,000$, and those of three years ago by $\$ 1,478.826,000$. The figures show that Treasury officials during the year handied in cash nearly twice the amount of the total stock of money in the United States, which is estimated at $\$ 3,720,000,000$.

Including bonds, checks and warrants the Treasury handled over $\$ 10,000,000,000$ during the year. This vast ageregation of wealth, which does not include the transactions of the subtreasuries, was handled without the loss of a cent to the Government.

The receiving teller of the Government took $n$ over the counter over $\$ 75.353 .000$ during the year; the paying teller cashed $\$ 118,177$,000 in checks and warrants; the shipping teltet sent $\$ 884.518 .000$ to various parts of the country, and the "change teller" made "small change" for more than $\$ 50,000,000$.

The Government received for redemption during the year \$606,666,000 in timeworn United States currency and $\$ 675,889,000$ in National bank notes

## SUMMARY OF POLITICAL DATA FOR THE STATE AND NATION

Voters and others interested in the progress and development of government through political parties or who find it necessary to refer to the statistics of past events will find much of interest and value in this section. Special attention is called to the political calendar for 1914, which recounts step by step the events in which voters and parties will participate during the twelve months. For data relative to past political events not contained in this book, readers are referred to the Texas Almanaes of 1912 and 1911 .

## PARTY EXECUTIVE

## COMMITTELSS, 1914


#### Abstract

The executive committees of the political parties in Texas are composed of one member from each Senatorial district. The Prohibition party in 1913 was reported disorganized and had no authorized executive committee.


## Democratic Party.

Walter Collins, chairman, Hillsboro; Charles J. Kirk, secretary, Houston; Lloyd P. Lockridge, assistant secretary, Austin.
Dist. Name. Residence.
1-J. C. Fant, Linden.
$2-W$. P. Cornelius, Clarksville.
3-J. S. Williams, Paris.
4-George H. Culp, Gainesville.
5-William Bacon, Greenville.
6-J. J. Simmons, Dallas.
7-J. R. Warren, Gilmer.
8-A. H. Baker, Carthage.
9-J. S. Grinnan Jr., Terrell.
10-Earl Fain, Ennis.
11-W. T. Hefley, Cameron.
12-E. G. Setzer, Teague.
13-P. H. Hughes, Palestine.
14-Thomas N. Hill, Beaumont.
15-L. C. Eastham, Huntsville.
16-B. F. Bonner, Houston.
17-James B. Stubbs, Galveston,
18-E. J. Weber, La Grange.
19-J. R. Heslip, Caldwell.
20-John L. Brunner, Taylor.
21-M. L. Hurst, Lockhart.
22-O. A. McCracken, Floresville.
23-Archie Parr, San Diego.
24-R. P. Coon, San Antonlo.
25-G. B. Fenley, Uvalde.
26-Hilton Burks, Comanche.
$27-D r$. R. Bailey, Gatesville.
28-Thomas Trammel, Sweetwater.
29-D. E. Decker, Quanah.
$30-P a u l$ Waples, Fort Worth.
31-J. W. Chancellor, Bowle.
Republican Party.
Dist. Name. Residence.
1-W. E. Singleton, Jefferson.
2-Vacancy.
3-Phil E. Baer, Paris.
4-H. S. Legate, Denison.
5-D. W. Ryon, Point.
6-George F. Rockhold, Dallas.
7-J. H. Parker, Tyler.
8-Vacancy.
9-A. M. Somers, Terrell.
$10-\mathrm{J}$. B. Copeland, Itasca.
11-M. M. Patten, Waco.

12-P. D. Daniels, Teague.
13-W. B. Rogers, Palestine.
14-H. M. Smith, Port Arthur.
15-George W. Jones, Navasota.
16-C. A. Warnken, Houston.
17-E. C. Webster, Alvin.
18-Leo I. Steiner, Columbus.
19-C. P. Zegenhals, Bastrop.
20-John Hall, Lampasas.
21-L. C. Schlemmer, Kyle.
22-H. C. Adler, Victoria.
23-W. O. Staver, Laredo.
24-J. M. Oppenheimer, San Antonio.
25-C. L McDowell, Del Rio.
26 -George H. Wray, Dublin.
27-J. H. Burnett, Belton.
28-L S. McDowell, Big Spring.
$29-E$. E. Diggs, Childress.
30-G. A. Tomlinson, Fort Worth.
31-T. A. Fobinson, Denton.

## Progressive Party.

Cecil A. Lyon, chairman, Sherman; Bart Marshall, secretary, Sherman.
Dist. Name. Residence.
1-J. M. Singleton, Jefferson.
2-Velmer Antle, Sulphur Springs.
3-C. A. Gray, Bonham.
4-O. F. Johnson, Sherman.
5-R. F. Akridge, Wolfe City.
6-J. M. McCormick, Dallas.
7-J, L. Jackson, Tyler.
8-Cooper Sheftall, Longview.
9-Rube Freedman, Corsicana,
10-W. B. Franks, Palmer.
11 -F. W. Stallworth, Marlin.
12-John Daley Jr., Bryan.
13-G. W. Burkitt Sr., Palestine.
14-O. S. Hunter, Beaumont.
15-Vacancy.
16-Henry Lee Borden, Houston.
17-Ed McCarthy, Galveston.
18-W. A. Matthaei, Bellville.
19-M M. Turney, Smithville.
20-J. C. Bierbower, Lampasas.
21-W. B. Kelly, Lockhart.
22-M. P. Schorre, Runge.
23-Ed C. Lasater, Falfurrias.
24-J. D. Dodson, San Antonio.
25-T. J. Martin, Spofford.
26-W. P. Hallmark, Dublin.
27-J. E. Williams, Hamilton.
28-म. A. Baker, Albany.
29-K. N. Hapgood, Henrietta.
$30-\mathrm{F} . \mathrm{M}$. Wright, Fort Worth.
31-Harry Karlsburg, Bowie.
Socialist Party.
J. W. Hicks, chairman, Fort Worth; E. A Green, secretary, Rockdale

Dist. Name.
1-D. P. Bradshaw.
2-G. W. Koontz.
3-W. W. Meadows.
4-W. A. Ellard.
5-G. Herd.
6-D. B. Knool.
7-Nat B. Hunt.
8-C. E. Lawless.
9-Mrs. Dewitt Owen.
10-G. Y. Hobson.
11-D. M. Mitchell.
12-W. C. Barnes.
13-J. B. Truitt.
14-B. L. Melton.
15-W. J. Mills.
16-J. A. Voth.
17-D. D. Shaw.
18-A. C. Meitzen.
19-F. T. Flint.
20-E. N. Pickett.
22-John Scarbrough.
23-I. B. Stone.
24-John Smith.
25-P. L. Abel.
26-J. A Daniel.
27-R. F. Isbel.
28-Dr. J. A. Presley.
29-Charles Perrone.
$30-J$. H. Brinkley.
Note-Data relative to the addresses of committeemen of Socialist party was not received in time to be included in this section.

## POLITICAL CALENDAR

FOR THE YEAR 1914
1813.

Oct. 1-Payment of poll taxes and procurement of certificates of exemption, in order to qualify for voting, begins.

Dec. 4-Tax Collector of Grayson County must give four weeks' notice of appointment of deputy to receive poll tax payments at branch office in Denison and of the location of such branch office.

## 1914.

Jan. 1-Tax Collector of Grayson County must keep branch office open in Denison during the entire month of January to receive poll tax payments and issue receipts. Branch offices and substations for such purpose are not allowed elsewhere in the state.

Jan. 31-Last day for payment of poll-taxes and procurement of certificates of exemption.

Feb. 5-At February term Com: missioners' Courts shall appoint judges of elections.

March 10 -On or before this date each County Tax Collector shall make statement to County Clerk of number of poll tax receipts issued, and to whom, in each preeinct.

April 1-On or before this date County Collector shall furnish to county election board (County Judge, County Clerk and Sheriff)
certified lists of citizens of each precinct who have paid poll tax or procured exemption certificates.

May 11-Republican State Executive Committee shall meet at some place named by State chairman and decide whether it will make nominations by primary election or through conventions, and shall certify its decision to Secretary of State. (Democratic party is required to nominate through primary election.)

June 1-Candidates for party nominations for offices to be filled by a vote of the state at large shall file applications on or before this date for place on the primary election ballot. Applications may be filed by any twenty-five citizens. Deposit of such application in the United States mall by registered letter within the time limit is deemed sufficient.

June 1-Candidates for office in districts composed of more than one county shall file applications with district chairman of the respective county chairmen by this date. Twenty-five citizens may file.

June 8-State executive committee of party shall meet on this date to certify to county chairmen names of candidates for State offices to go on the ballot and to name place for holding State convention in August.

June 13-On or before this date candidates for offices to be filled by the voters of a single county or portion thereof must file applications for place on primary ballot with county chairman. Twentyfive citizens may file.

June 15-County executive committee meets to determine order of names on ballot, to name subcommittee to make up ballot, and to transact other business.

June 19 -On or before this date candidates in primary election must pay ballot fees.

July 13 -Subcommittee of county executive committee meets to make up ballot.

July 20 -On or before this date persons who have removed from one election precinct to another must apply to the County Tax Collector for record of such transfer. On this date Collector shall furnish County Election Board with supplemental lists showing such transfers. This applies only to cities of 10,000 or more inhabitants.

July 22 -If presiding judges of election have not been furnished certified lists of qualified voters by this date, they "shall send for and procure them."

July 25 -Primary election and precinct convention day. Primary election opens 8 a. m. and closes at 7 p. m.

Aug. 1-County executive com-
mittee canvasses returns. County convention is held.

Aug. 4-Managers of political headquarters, or others who have expended money in behalf of any candidate or political party, must file statement of espenses with County Judge within ten days after election. Within the same time candidates must also file itemized statement of expenses.

Aug. 8-Second primary election day.

Aug. 10-Commissioners' Courts may reform election precincts. Shall serve notice on presiding judge of each precinct within ten days.

Aug. 10-State Executive Committee meets to canvass returns of primary eiection.

Aug. 11-State conventions of all parties.

Alug. 22-District conventions of all parties.

LuE. 24-On or before this date namos of all candidates for state and disir.ct offices must be certified 10 Secrciary of State. Secretary ut state is not reauired to do anything in respect to the names. Applications for placing names of inderendent ur nondartisan candidates on orticial ballot for general election must be filed with Secretary of State by this date.

Sept. 1-On or before this date Commissioners Courts shall file with County Clerk certified copy of order establishing election precincts.

Oct. 1-Citizens of cities of 10 ,000 or more inhabitants, wino intend to be absent from Oct. 1 to Feb. 1, may provide for payment of poll tax through an agent, who must be authorized in writing as prescribed.

Oct. $1-$ On or before this date in each year Commissioners' Court shall furnish County Collector with poll tax receipt books.

Oct. 5 -On or before this date Governor shall make proclamation of the general election. County Commissioners shall give notice of the election. Secretary of State shall prescribe to each County Judge forms of blanks necessary for the election and returns.

Oct. $15-$ On or before this date any nomince may decline or annul lis nomination.

Oct. 29-On or before this date the county chairman of any party having candidates upon official ballot may nominate a supervisor of election for each voting precinct.

Oct. 30-On or before this date persons who have removed from one election precinct to another must apply to County Tax Collectic for record of such transfer. On this date County Collector shall furnish the County Election Board
with supplemental lists showing such transfers. This applies only to cities of 10,000 or mole inhabitants.

Oct. 31 -If certified lists of voters are not in hands of any presiding judge of the election by this date, he "shall send for and procure them."

Nov. 2-Sheriff shall on this day deliver writs of election and forms to presiding judges of election.

Nov 2-Any one-fifth of the candidates muy on this day agree upon and select two supervisors of the election.

Nov. 3-General election; polls open from 8 a. $m$. until 7 p. $m$.

Nov. 9-Commissioners' Court canvasses returns.

Nov. 13-On or before this date managers of campaigns, others who expend money in behalf of candidates and candidates themselves must file itemized statements of expenses with County Judges.

Nov. 15-Presiding judges of election must make returns to Commissioners' Court on or before this date.

Dec. 2 -County Judges in counties to which returns for district offices are made shall on this day canvass such returns and report upon same to Secretary of State. All County Judges shall report to the Secretary of State the names of county and precinct officers elected.

Dec. 14-Secretary of state canvasses returns for all State officers (except Governor and Lieutenant Governor) and for district offices.
1915.

Jan. 12-18--I egislature in first weck after organization shall canvass returns for Governor and Lieutenant Governor.

Jan. 19-Inauguration of Governor and Lieutenant Governor.

## OFFICES TO BE FILLED.

In the general election, 1914, offices will be filled "from Governor down to Constable." Qualified electors of the Democratic party will participate in a primary election July 25 to nominate candidates for each of these offices. State executive offices to be filled are Governor, Lieutenant Governor, Attorney General. Controller, State Treasurer, Superintendent of Public Instruction, Commissioner of the General Land Office, one Railroad Commissioner, one member of the Supreme Court and one member of the Court of Criminal Appeals. Also, one member of each of the eight Courts of Civil Appeals will be chosen, as well as a number of District Judges and District Attorneys.

## PROPOSED CONSTITUTIONAL

 AMENDMENTS CHANGESTwo, possibly three, proposed amendments to the Constitution of the State will be voted upon in the general election in November, 1914.
The first of these proposed smendmints, submitted through Senate - int Resolution No. 26, provides that each member of the Legislature shall receive a salary of $\$ 1,200$ in the year in which the regular session of the Legislature is lield; for special sessions held in the year next succeeding the year of the regular session he shall be paid $\$ 5$ a day for each day of such special session. He shall receive milcage at the rate of 5 c a mile.

The second of the proposed amendments would authorize counties bordering on the Gulf of Mexico to issue bonds for the construction of seawalls. This is submitted through Senate Joint Resolution No. 22.

Senate Joint Resolution No. 12 undertakes to provide that a proposition to insert a provision for the initiative and the referendum in the Constitution shall be submitted to a vote of the people at the general election in November, 1914. However, the certificate on the enrolled resolution falls to show that the measure received in the House the required two-thirds vote, although the House journal shows that it did receive such vote. The Legislature at the special session in last July undertook to correct the certificate, but with what effect does not yet appear. The provision which it is sought to insert in the Constitution, in lieu of the present Sec. 1 of Art. III, reads as follows:
"The legislative power of this State shall be vested in a Senate and House of Representatives, which, together, shall be styled 'The Legislature of the State of Texas,' but the people reserve to themselves power, as herein provided, to propose laws and to enact or reject the same at the polls, and to approve or reject at the polls any law, or any part of any law, enacted by the Legislature. The Legislature shall provide by law for submitting to the vote of the people, upon the petition of 20 per cent of the qualified voters of the State, the enactment of laws and the approval or rejection of any law enacted by the Legislature."

## TEXAS LFGISLATCRE;

 THIRTY-THIRD SESSION
## Regralar Sexsion.

The most important laws enacted by the Thirty-Third Texas Legislature in its regular session, January to April, 1913, are here summarized:

STATE PRISON SYSTEM-Appropriation of $\$ 100,000$ to pay current operating expenses and of $\$ 450,000$ for the support and authority to issue $\$ 2,000,000$ bonds.

CRIMINAL-A new law auchorlaing suspension of sentences in cases where the jury does not impose a sentence for more than five years' imprisonment. (2) I law providing fo: indeterminate sentences. (Errors in this act were corrected at tiee special session in July and August.) (3) Defining the offense of assault with a deadly weapon; penaltios, fine not to exceed $\$ 2,000$, or imprisonment in jail not to exceed two years or imprisonment in penitentiary not to exceed five years. (4) Abolishing the degrees of murder. (5) Denouncing the passing of a check when money is not in bank to protect it, or arrangements for such protection have not been made, as "swindling," and making it punishable as such. (6) Prohibiting hazing at the State educational institutions.
NEW COUNTIFS-The Legislature authorized the creation of Jim Hoyg. Real and Kleberg Counties.
liAII,ROAD CONSOLIDATIONSActs were passed authorizing the consolidation of six groups of railroads. The companies authorized to take over other lines were the Missouri. Kansas and Texas Railway Company of Texas; Gulf, Colorado and Santa Fe Rallway Company; St. Louis Southwestern Railway Company, Houston and Texas Central Railroad Company, Texas and New Orleans Railroad Company and El Paso and Southwesteri: Railroad Company.
LABOR-Enlarging jurisdiction of State Inspector of Masonry, Public Buildings and Public Works and providing for the appointment of two assistant inspectors. (2) Making eight hours a day's work on all public buildings and work in the State, except that the same does not apply to State and county convicts. (3) Giving the employes of mills, factories. shops, stores, etc., a preference lien upon prod: ucts, machinery, etc., to secure the parment of wages. (4) Requiring contracting stevedores to give bond securing employes' wages. (5) Requiring persons contracting with the State or any of its political subdivisions for the construction of buildings. etc., to give bond to secure laborers' wages. (6) Providing for an additional factory inspector. (7) Fixing a mechanic's lien in favor of laborers on levees and other reclamation works. (8) Fixing the responsibility of rallroads and other carriers for the death of persons. (9) Fixing the right of citizens of Texas to recover damages for injuries received in foreign countries. (10) Regulating the hours of labor and conditions of employ-
ment of females in factories, etc, (11) I'roviding a system for compensating employes injured in the course of their employment. Does not apply to domestic servants, farm laborers, the employes of railroads or of colton gins.

LIQCOR TFAFFIC. FTC.-Making it a felony to sell liquor outside of saloon limits in a city. (2) Taxing wholesale liquor dealers upon all sales, instead, as heretofore, only upon sales to dealers. (3) "The Allison law," prohibiting the shipment or carrying of liquor into prohibition territory and greatly limiting the same as to "wet territory." (1) Requiring saloons to close from $9: 30 \mathrm{p} . \mathrm{m}$. until 6 a. m. (5) Making it an offense to get or be found drunk in any place except one's own home. (6) Providing for local option prohibition of pool or billiard halls. The constitutionality of the act has been questioned.

CITY GOVERNMENT-Validating the commission government of cities of 1,000 to 5,000 inhabitants. (2) "The Home Rule Law," authorizing the people in cities of 5,000 or more inhabitants to adopt or amend their city charters by popular vote.

INSCRANCE-New code for incorporation of mutual hail insurance companies. (2) Code for incorporation of mutual fire, lightning, hail and storm insurance companies. (3) Authorizing corporate surety companies to become sureties on bonds of State, district, county and municipal officers. (4) Prohibiting the use of co-insurance clauses in fire insurance, except as to oil in tanks, wool, mohair, grain, rice, cotton, cotton seed oil mills and products. (5) Providing that technical defenses shall not avail to defeat fire insurance. (6) Creates State Fire Insurance Commission in place of State Fire Rating Board. All members of this commission are to be appointed by the Governor and the commission is to have power ta prescribe maximum rates. (7) Authorizing the insurance of automobiles and other motor vehicles. (8) Authorizing and regulating interinsurance. (9) A new code governing fraternal insurance.

STATE GOVERNMENT-Defining the duties of the Attorney General. He is prohibited from giving legal advice or written opinions to any other than certain State officials, committees of the Legislature and District and County Attorneys.

WOMEN, CHILDREN, ETC.-Giving women control over their separate estates. (2) Creates State Bureau of Child and Animal Protection, the members to be appointed from the directorate of the Texas State Humane Society and giving the members broad
powers to enforce the humane laws. (3) Act to punish husband for desertion of wife and children and to punish either parent for desertion of children. (4) Act amending divorce law; among other things it prohibits remarriage until twelve months after date of divorce. (5) Authorizes State Humane Society to make arrests for cruelty to animals; makes elaborate provisions for protection of fowls, birds, etc., in market and in transportation. (6) Amends juvenile court law so as to require the appointment of probation officers in the larger counties of the State. (7) Provides for the establishment of a girls' training school for the education and training of dependent and delinquent girls. (8) Provides that inquiry as to insanity shall be made by a commission of physicians.

PUBLIC LANDS-Granting relief to purchasers of school lands who have been obliged to defend lawsuits. (2) Provides a manner in which purchasers of public school lands whose lands have been forfeited for nonpayment of interest may repurchase same after revaluation of the land. Provision is made for a commission to make such revaluation. (3) Validating title to school lands sold under act of 1879. (4) Validating lands taken under certain relocations. (5) A new mining code in respect to the public lands of the State.

RAILROADS - Rẽquiring train dispatchers to inform station agents as to the movement of passenger trains. (2) Requiring station agents to post bulletins giving information as to the arrival of passenger trains. (3) Requiring railroads to place derailing devices on repair tracks. (4) Authorizing interurban companies to own and operate union depots and office buildings.

PUBLIC HEALTH-Authorizing County Commissioners' Courts to establish county hospitals. In counties which have a city of more than 10,000 inhabitants county hospitals must be established. (2) Prohfbits the pollution of streams and other public waters. All individuals, towns, cities and corporations must construct works necessary to protect said waters within three years after the taking effect of the act: that is, by July 1 , 1916. (3) Amends law in respect to leaving dead animals in public highways, so as to prohibit the same within 500 yards of any private residence.

ELECTIONS-Provides for Presidential preference primary and for the choosing of delegates and candidates for electors in such primary.

AGRICULTURE-Requiring live stock commission merchants to give bond for the protection of
persons for whom they handle shipments. (2) Act to protect bees from foul brood and other contagious diseases. (3) Provides for teaching cotton classing in State normal schools, State industrial school, summer normal schools, teachers' institutes and public free schools. (4) Providing for quarantine as to charbon and other diseases affecting cattle. (5) A code providing for the formation and incorporation of rural credit unions for promoting thrift among the members and to enable the members to obtain moderate loans for productive purposes at reasonable rates of interest. (6) Requiring commission merchants to give bond for the protection of persons who consign to them, and otherwise regulating such merchants. (7) Providing for the establishment of farmers' county public libraries. (8) Provides for the establishment of experiment stations for crops and for the breeding, feeding and fattening of live stock, and places all such experiment stations under the control of a single board to consist of the Lieutenant Governor and two members to be appointed by the Governor. (9) A new code governing live stock quarantine. (10) Continuing the sheep scab law in effect for another year after July 1, 1913.

PGNSIONS - Defines the term "indigency" in respect to pensions paid by the State. In order to be entitled to a pension neither the applicant nor his wife, nor both together, nor the widow, if applicant be a widow, shall own property worth more than $\$ 1,000$, exclusive of the homestead, which must not be worth more than $\$ 1,000$, and exclusive of household goods and wearing apparel, and such applicant shall not enjoy an income in excess of $\$ 300$ per year. (2) Levies a tax of 5 c on the $\$ 100$ to pay Confederate pensions. Those eligible for pensions are disabled and indigent soldiers who during the war between the States served at least six months in authorized organizations for the protection of the frontier or members of the State militia who saw at least six months' active service during the said war, and to every indigent widow of such soldier who was married to him prior to Jan. 1, 1900, or to indigent and disabled Confederate soldiers or sailors who saw at least three months' active service and who became residents of Texas prior to Jan. 1, 1900, and have continuously resided in this State since that time and to the widow of any such soldier or sallor Who was married to him prior to Jan. 1, 1900, and who has resided in Texas continuously since that time, but not to any woman born since 1861.

JURISPRUDENCE-An act deDigitized for FRASER
fining the jurisdiction of the appellate courts known as "The supreme Court Relief Bill." (2) Providing for the submission of civil cases on special issues. (3) Requiring verified pleadings in civil cases. (4) Providing for the continuation of terms of court when Judge dies during session. (5) Permits the use of motion for new trial as an assignment of error. (6) Requires the reading of charges in criminal cases to the jury before argument of counsel and requiring exceptions to said charges to be made at the time. (7) An act amending the venue statute so as to provide that where a note or chose of action has been transferred the subsequent holder will not have the right to institute suit except in the county in which such suit could have been prosecuted if no assignment had been made. (8) An act amending the fee law so as to limit the fees of various officers. (9) Requiring applications for felony witnesses to be made under oath and allowing $\$ 1.50$ per day to witnesses in the county in felony cases. This act was amended at the special session so as to allow said witnesses only $\$ 1$ per day for not more than five days in any case. (10) Increases the salaries of Judges of Supreme Court and Court of Criminal Appeals to $\$ 5,000$ a year and salaries of Judges of the Courts of Civil Appeals to $\$ 4,000$ a year.

STATE MEMORIALS-Authorizes the purchase of the LaBahia Mission property near Goliad, where Fannin and his men were imprisoned, and to accept the donation of what is known as Fannin's battlefield in said county to be maintained as a park or memorial. (2) Accepts from the city of Gonzales title to a strip of ground running through said city and containiag about 150 acres of land, to be known as Gonzales State Park and to be maintained as such. (3) Prohibiting the use of the Texas State flag for advertising purposes.

AUTOMOBILES-Prohibiting the throwing of glass, tacks, etc., In public roads or streets. (2) Prescribing penalties for stealing automobiles or other motor vehicles or parts thereof or for meddling with the same.

CORPORATIONS - Recognizing automobiles in the formation of corporations for livery and transfer business. (2) Authorizing lce companies to buy and sell poultry and to can fruits, etc. (3) Adding to the purposes for which corporations to engage in two or more kinds of businesses may be formed and limiting the capitalization of such companies. (4) Validating increases in the capital stock of certain oil and pipe line companies.

EDLCATION-Authorizing trustees of comamon seliool districts to extend the benciits of the public school to persins up to the age of 21. (2) Fixing the number and term of office of the members of the boards of various state institutions, this to cunform with a constitutional amendment providing for six-year terms. (3) A code regulating the ligliting, heating, ventilation, etc., of ail pubice school buildings. (4). Providing that no common school district shall be so arranged or organized as that the geographical center shall be more than four miles from its farthest line in counties of less than 10,000 population. (5) Establishing a State school of mines and metallurgy at El Paso.

BANKING-lncreasing the requirements as to the capital stock of banks and trust companies. (2) Changing method tor procuring charters for wanks and trust companies. (3) Changing statute of limitations as to deeds of trust, vendors' liens, etc.

ESTATES-Regulating presentment of claims against estates of decedents. (2) Authorizing guardians to make mineral leases. (3) Fixing the amount of guardians' bonds.

FISHERIES-A new penal code governing the tidewater fisheries of the State. (2) A new civil code upon the same subject.

PUBLIC WORKS-A new code enlarging the scope of the state Levee and Drainage Department; creates office of State Reclamation Engineer. (2) Amends depository law so as to recognize irrigation, public roads, drainage and levee bonds. (3) A new water and irrigation code. (4) A new district irrigation code. (5) Regulating the compensation of County Commissioners when acting as supervisors of public roads.

MISCELLANEOUS-An act to prevent the letting of natural gas wells run wild. (2) Exempting Y. M. C. A. and X. W. C. A. property from taxation.

## Spectal Session Laws.

Following is a summary of the most important laws passed by the Thirty-Third Legislature in called session, 1913.

Indeterminate Sentence - An amendment correcting mistakes in the law as passed in regular session. (See summary, regular session.)

The Training School-An act changing designation of the State Juvenile Training School and designating powers and duties of the board of trustees.

Witnesses in Felony Cases-An amendment to an act of the Thir-ty-Third Legislature in regular session. This act fixes the witness fee at $\$ 1$ per day to be paid by the State. The original act de-
fined duties of District Clerks, Sherifis and Judges relative to is: suing subpenas and collecting fees in felony cases.

Public lands-An act to validate certain settlement on and purchases of free school land wherein good faith has been shown by the purchaser.

Railroad Companies and Ship-pers- An act requiring railroads to furnish cars upon written request and shippers to deposit one-fourth of the amount of freight charges to accrue and to load car within forty-eight hours.

Redemption of Lands - Lands sold for takes may be redeemed by former owners within two years by paying back taxes, costs, etc.

Mineral Development-A law permitting persons or corporations to file on public lands for the purpose of developing oil, gas and other minerals.

The Texas Flag-An act prohibiting the use of the Texas flag, any imitation, design or print thereof for advertising purposes.

Deficiencies-A law prohibiting the creation of deficiencies by those in authority at State educational or eleemosynary institutions.

To Prevent Seining-A law prohibiting seining. except for minnow or shrimp, during the period from June 1 to Sept. 1 in the waters controlled bv Texas.

Liens, an Amendment-Provides for the validity of mortgages and liens an additional four years after maturity, provided a contract is properly entered into and filed.

Intoxicating Liquors-A civil law fixing the hours of opening and closing of business where intoxicating liquors are sold, the hours being fixed from 6 o'clock a. m. until 9:30 p. m. (2) Prohibiting the shipment of intoxicating liquor into prohibition territory.

Sale of Corporation Stock-An Act to regulate the sale of stocks of private, foreign and domestic corporations. This act is known as the "blue sky law of Texas."

Building and Loan Associations -This act provides for the incorporation and regulation of building and loan associations, prescribing nature of the charter required and the duties of officers and directors, also penalties for misapplication of money or other funds of the association.

Dunn County-An act creating Dunn County out of portions of the territory of Brooks and Duval Counties.

Drainage Districts-An act providing for the voluntary abolishment of drainage districts. (2) An amendment to the general laws passed by regular session relating to the organization and operation of drainage districts, increasing authority in the conduct and man-
agement of said districts; reducing the ftes allowed the County Judge and County Treasurers for approving and selling bonds, and requiring Commissioners to make more irequent reports.

Public Warehouses-An amendment prescribing for the conduct of the business of public warehousemen, describing what constitutes such a warehouse and defining who shall be held to be public warehousemen.

Experimentat Stations-Providing for the establishing of additional feeding and experimental stations; providing for the governing of stations and for selling land owned by the state and used in connection with experimental stations.

United States Senators-An act providing for the election of United States Senators by direct vote.

Appropriaticn Bills-Appropriations for the support of the State government and its various institutions were made at the called session of the Legislature.
lublic Health-An act requiring the State Health Department to disseminate information concerning the cause and nature and extent of communicable disease and requiring the display throughout the State of a public health exhibit in a rallway car.

SUFPRAGE IN TEXAS.
The following classes of persons are probibited from voting in Texas. All persons under 21 years of age; idiots and lunatics; paupers supported by any county; persons convicted of any felony; soldiers, marines and seamen in the service of the United States. Every male citizen 21 years of age, subject to none of the foregoing disqualifications, who has resided in the State one year next preceding the election and the last six months within the district or county where he offers to vote, is a qualiffed elector. Payment of poll tax, however, is required.

## POLL TAX PAYMEN'S

ENDING JANUARY 1

| County- | 1913 | 1912. |
| :---: | :---: | :---: |
| Anderson | 4,322 | 4,525 |
| Andrews | 133 | 177 |
| Angelina | 2,559 | 2,588 |
| Aransas | 274 | 15 |
| Archer | 856 | 1,031 |
| Armstrong | 478 |  |
| Atascosa | 1,244 | 1.349 |
| Austin | 2,710 | 2,825 |
| Bailey | 42 |  |
| Bandera | 782 | 844 |
| Bastrop | 2,995 | 3,158 |
| Baylor | 1.062 | 1,279 |
| Bee | 1.422 | 1,445 |
| Bell | 6.741 | 7,343 |
| Bexar | 14,500 | 14,786 |
| Blanco | 730 | 781 |
| Borden | 205 | 239 |
| Bosque | 2,773 | 3.151 |
| Bewle | 3,321 | +,680 |

Poli Tax Payments-Continued.


| Vote for Govern County- |  | nued. Ramsey. | Vote for Govern County- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Burleson ............ | 1.101 | ${ }_{783}^{68}$ | Hunt ${ }_{\text {Hut }}$........... | 2,371 | 3,182 |
| ${ }_{\text {Burnet }}^{\text {Caldweli }}$ | ${ }_{970}$ | 1.080 | Irron | 151 | 121 |
| Cathoun | 390 | 236 | Jack |  | 621 |
| Callahan | 1.436 | - 684 | Jackson | -346 | 3220 |
| Cameron | 434 | 513 | Jeff Davis | ${ }^{7}$ | 17 |
| Carson | 1,1878 | 1,213 | ${ }_{\text {Jim }}^{\text {Jerferson }}$ Wells | 1,986 | 1,205 |
| Castro | 1,138 | ${ }^{1} 147$ | Johnson | 1.701 | 2,722 |
| Chambers | 1,442 | 1,398 | Jones | 1.029 | 1,300 |
| Cherokee | 1,447 | 1,698 | Karnes | 1,951 | 1,823 |
| Clay | 778 | 892 | Kendall | 35 | , 34 |
| Cochr | $\underline{282}$ | 9999 |  | 342 | $\stackrel{134}{134}$ |
| Coleman | ${ }_{2}^{1,107}$ | 8, 1,354 | Kimble ${ }_{\text {King }}^{\text {King }}$, ..................: | 326 | 187 |
| Collingsworth |  | \% 561 | Kinney | ${ }_{38}$ | 18 |
| Comal | 1,1939 |  | ${ }_{\text {Lamar }}$ | 2,724 | 2,408 |
| Comanch | 1,586 | 1,585 | Lamb |  |  |
| Concho | 1.407 | 1,363 | Lasalle | ${ }^{590}$ | 129 |
| Coryell | ${ }^{1,587}$ | ${ }_{1}^{1,346}$ | Lee | ${ }_{1}^{2,002}$ | ${ }_{312}^{406}$ |
| Crane |  |  | Leon | 776 | 881 |
|  | 181 | 196 | Limeston | 1,630 | 1,509 |
| Culberson | 131 | 1958 | Lipscomb ${ }_{\text {Live }}$ | ${ }_{46}^{46}$ |  |
| Dallas | 7,131 | 6,392 | Liano ................... | 638 | 428 |
| ${ }_{\text {Deaf }}^{\text {Daws }}$ |  | ${ }_{236}^{166}$ | Loving | 299 |  |
| Dealta | 973 | 939 | Lynn | 118 | 159 |
| Denton | ${ }_{2}^{1.891}$ | 1,8090 | Madison | ${ }^{616}$ | 730 |
| Dickens | ${ }^{215}$ | 266 | Martin | 112 | 115 |
| Dimmit | 397 | 142 | Matagorda | ${ }_{612}$ | ${ }^{183}$ |
| Duval | ${ }^{684}$ | $1{ }^{14}$ | Maverick | 54 | 40 |
| Eastor | ${ }^{116}$ | ${ }^{1} 1$ | McLennan | 4, ${ }_{61}$ | 4, 602 |
| Edwards |  |  | McMumin |  |  |
| ${ }_{\text {Ell }}$ Plis Paso. | 2,722 | ${ }_{1}^{1}$ | Menard | ${ }_{291}$ | ${ }_{106}^{249}$ |
| Erath | ${ }^{1.583}$ | 1,950 | Midland | 153 |  |
| Fannın | ${ }_{2}^{1,367}$ | 2,459 | Mils | 1.510 | ${ }_{565}$ |
| Fayette | 3.146 | 352 | Mitchell | 453 |  |
| Fisher | ${ }^{425}$ | ${ }_{487} 88$ | Montague | , 693 | 1,351 |
| Foayd | ${ }_{326}^{284}$ | 295 | Monteremer | 75 | 52 |
| Fort Ben | 679 | 395 | Morris | ${ }^{605}$ | 518 |
| $\underset{\text { Fraestone }}{ }$ | 1.065 | 1.020 | Nacogdoches | 1,271 | 1,380 |
| Frio | ${ }^{274}$ | 102 | Navarro | 2,404 | 2,743 |
| Gaiveston ${ }^{\text {co............. }}$ | 3,388 | 1,363 | Nolan .................... | 677 | 608 |
| Garza $\times$............... | ${ }^{124}$ | 160 | Nueces ${ }^{\text {One }}$ O............. | 882 | 477 |
| Glasscock | ${ }_{69}$ | 92 | Oflamam Ol................ | ${ }_{47}^{49}$ | 14 |
| Goliad | ${ }_{1} 401$ | ${ }_{1}^{122}$ | ${ }_{\text {Prange }}{ }_{\text {Pre }}$ | ${ }_{1}^{5768}$ | - 439 |
| Gray | ${ }^{143}$ | 1,251 | Panola .... | ${ }^{1} 948$ |  |
| Grayson | 3,662 | 3,344 | Parker | 1,486 | 1,705 |
| ${ }_{\text {Greges }}^{\text {Grimes }}$ | ${ }_{847}$ | ${ }_{719} 6$ | ${ }_{\text {Pecos }}$ Parmer | 117 | ${ }_{88}^{86}$ |
| Guadalupe | ${ }^{1.356}$ | 349 669 | ${ }^{\text {Polk }}$ | ${ }_{737}^{634}$ | 868 |
| Hall | 507 | 636 | Presidio | 177 |  |
| Hamilion | 1,115 | 965 | Rains. | ${ }^{373}$ | ${ }_{350}^{350}$ |
| Hardeman | 470 | 汸 | Reagan | ${ }_{36}$ | ${ }_{37} 16$ |
| Hardin | 8. 744 |  | Red Rive | 1, 1782 | 1,538 |
| Harrison | 1,104 | 1,113 | Refugio | 131 | 48 |
| Hartley | 101 | ${ }^{65}$ | Roberts | 39 | 98 |
| Hays | 669 | 868 | ${ }_{\text {Rocer }}$ Robertson | -1,087 | ${ }^{0} 736$ |
| Hermphill | ${ }^{80}$ | 142 | Runnels | 1,071 | 1,039 |
| Hidalgo | ${ }^{1,173}$ | 1,499 | Subine |  | 461 |
| Hockley | 2,552 | 3,043 | San Augusti | ${ }_{6} 619$ | ${ }^{437}$ |
| Hood | 5086 | $7{ }^{7}$ | San Patricio | ${ }_{231}^{26}$ | ${ }_{98}$ |
| Hopkins | ${ }^{1.668}$ | ${ }^{2} 1,105$ | San Saba. | -814 | ${ }^{688}$ |
| Howard .................: | ${ }^{1.428}$ | 1 | Bcurry | 577 | 825 |


| Vote for Governor－Continued．Vote for U．S．Senator－Continued． |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| County－ |  | Cols | itt. Ra | msey． |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Shelby |  | $\begin{array}{r} 276 \\ 1,568 \end{array}$ |  | $\begin{array}{r} 514 \\ 1,539 \end{array}$ | Counties－ |  |  |  |  |
| Sherman |  |  |  | 1，921 |  |  |  |  |  |
| Starr |  |  | $\stackrel{978}{58}$ | 215 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Stephens |  |  |  | 466 | Camp | 18： | 726 | 36 |  |
| Sterling |  |  | 8 | 148 | Carson | 64 | 157 | 64 | 23 |
| Stonewall |  |  | 9 | 28. | Cass | 651 | 1，661 | 53 | 17 |
| Sutton |  |  | 9 | 135 | Castro ．．． | 61 | $1: 8$ | 44 | 12 |
| Tarrant |  |  |  | 5.141 | Cherokee | 720 | 1.680 | 106 | 7 |
| Taylor |  |  |  | 1，4！0 | Childress | 266 | 1．635 | 179 | 8 |
| Terrell |  |  |  | 10 | Clay | 436 | 928 | 133 | 9 |
| Terry． |  |  |  | 144 | Cochran |  | － | 13 |  |
| Throckmorto |  |  |  | － 343 | Coke | 128 | 301 | 14i | 7 |
| Titus Gr |  |  |  | 1，004 | Coleman | 758 | 1．733 | ${ }^{1} 14 \times$ | 54 |
| Travis ． |  |  |  | 2，364 | Collingsworth | T98 | 1.328 610 | 2，060 | 34 15 |
| Trinity |  |  |  | 518 | Colorado ．．．． | 1．1；\％2 | 288 | 75 | 6 |
| Tyler |  |  |  | 538 | Comal． | 1．204 | ${ }_{26}$ | 21 |  |
| Upshur |  |  |  | 1，259 | Comanche | 504 | 1．624 | 195 | 10 |
| Upton |  |  | 2 | 26\％ | Concho | －6： | 8300 | 88 | 15 |
| Val Verde |  |  | 4 | 104 | Coryell | 1，138 | 1，36 | 287 | 17 |
| Van Zandt |  |  |  | 1，633 | Cottle | 1．18 | $\underline{257}$ | 50 | 5 |
| Victoria |  |  |  | 339 | Crane |  |  |  |  |
| Walker |  |  |  | 618 | Crockett | T | 68 | 20 | 2 |
| Waller |  |  |  | 438 | Crosby | 114 | 206 | 38 |  |
| Ward ．．．．． |  |  |  | 139 | Culberson | ！ 10 | 51 | 18 |  |
| Washington |  |  |  | 238 4.3 | Dallam | 137 4,064 | 5．507 | 1， $\begin{array}{r}39 \\ \hline\end{array}$ | － |
| Wharton |  |  |  | 576 | Dawson | －5．5］ | 576 | 1， 30 | 190 |
| Wheeler |  | ， |  | 386 | Deaf Smith． | 41 | 228 | 56 | 3 |
| Wjehita |  |  |  | 814 | Delta | 230 | 1.460 | 160 | 8 |
| Wilbarger |  |  |  | 741 | Denton | 1，165 | 1．6：36 | 560 | 29 |
| Willacy |  |  |  |  | DeWitt | 1．905 | 303 | 62 | 25 |
| Wilson ${ }^{\text {When }}$ |  |  |  | 1，650 | Dickens | 105 | $\stackrel{218}{101}$ | 48 | 5 |
| Winkler |  |  |  | 34 | Donley | 175 | 413 | 80 |  |
| Wise |  |  |  | 2.045 | Duval． | 688 | 4 |  |  |
| Wood |  |  |  | 1，161 | Eastland | 611 | 1，523 | 228 | 18 |
| Trakum |  |  |  | 84 | Ector | 97 | 1，67 | 13. | 1 |
| Young |  |  |  | 944 | Edward |  |  |  |  |
| Zapata |  |  |  |  | Ellis | 1，993 | 3，58S | 427 | 64 |
| Zavalla |  |  |  |  | El Pas | 2.911 | 1，196 | 324 | 102 |
|  |  |  |  |  | Erath | 888 | 1．97： | 40.1 | 47 |
| Totals |  | 219. |  | 179，857 | Fannin | 1，248 | 1，513 | 343 | 53 |
| VOTE F | R U． | S．SE | ATOI |  | Fayette | 3.110 | －274 | $\begin{array}{r}1.818 \\ 5 \\ \hline 1\end{array}$ | 10 |
|  |  |  |  |  | Fisher | 274 | 673 | 108 | 13 |
|  |  |  |  |  | Foard ．．．．．．．．． | 115 | 319 | 117 |  |
|  |  | 5 |  |  | Fort Bend．．． | $6{ }^{2} 2$ | 310 | 38 | 5 |
| Counties－ | 乐 | 2 | ¢0゙き | $\pm$ | Franlitin | 275 | 106 | 51 | 6 |
|  | ） | －${ }^{2}$ | โ్ส | 可 | Freestone | 518 | 1，066 | 285 | 32 |
|  | $\cdots$ |  |  |  | Frio ． | 157 | 421 | 58 | 2 |
| Anderson | 834 | 1，478 | 234 | 91 | Galvesto | 2，200 | 1，917 | 256 | 127 |
| Andrews | 18 | 102 | 21 | 1 | Garza | 46 | 160 | 48 | 3 |
| Angellna | ¢84 | 1184 | 243 | 35 | Gillespie | 759 | $\frac{74}{6}$ | 13 | 4 |
| Aransas | 305 | 370 | 70 | ii | Goliad | 378 | 122 | 9 | 4 |
| Armstrong | 53 | 304 | 94 | 4 | Gonzales | 1.145 | 1，239 | 61 | 9 |
| Atascosa | 375 | 381 | 139 | 30 | Gray | 50 | 241 | 47 | 5 |
| Austin | 1，647 | 144 | 82 | 11 | Grayson | 1.038 | 1.983 | 3，7\％1 | 11 |
| Bailey |  |  |  |  | Gregg | 203 | 765 | 47 | 1 |
| Bandera | 117 | 105 | 24 | 1 | Grimes ．．．．．． | 560 | 858 | 50 | 11 |
| Bastrop | $9: 18$ | 889 | 147 | 20 | Guadalupe | 1，143 | 391 | 36. | 7 |
| Baylor | 370 | 504 | 93 | 5 | Hale | 196 | 653 | 131 | f |
| Beell | 2， 260 | 442 | 155 | 31 | Hamilton | 208 | 174 | 143 | 15 |
| Bexar | 7，144 | 1，688 | 1，023 | 201 | Hansford | 6.8 | 1，006 | 223 | 16 |
| Blanco | 291 | 176 | 26 | 2 | Hardeman ．．． | 198 | 766 | 143 | 6 |
| Borden | 70 | 1 196 | 18 |  | Hardin | 55. | 634 | 81 | 13 |
| Bosque | 777 | 1，433 | 226 | 20 | Harris | 8，397 | 2，734 | 722 | 43 |
| Bowie | 408 | 2，241 | 113 | 5 | Harrison | 689 | 1，179 | 228 | 9 |
| Brazoria | 432 | 451 |  | ${ }^{6}$ | Fartley | 41 | ${ }^{6} 5$ | 21 | 3 |
| Brazos ${ }_{\text {Brewster }}$ | 60 | 689 | 103 | 13 | Haskell | 468 | 934 | 130 | 13 |
| Brewster Briscoe | 107 | 59 | 20 |  | liays | 513 | 806 | 93 |  |
| Briscoe | 94 | 158 | 32 | 8 | Hemphill ．．．． | 44 | 103 | 50 | 2 |
| Brooks | 254 | 55 | 349 |  | Henderson ．． | 680 | 1，012 | 347 | 32 |
| Brown | 916 | 1.410 | 349 | 55 | Hidalgo | － 871 | ． 312 | 12 | 3 |
| Burleson | 906 | 609 | 143 | 16 | Mill | 1，801 | 3，145 | 318 | 42 |
| Burnet ${ }_{\text {Caldwell }}$ | 542 | 635 | 170 | 21 | Hockley |  |  |  |  |
| Caldwell | 820 | 1，056 | 56 | 5 | Hood | $2{ }_{24} 4$ | 753 | 234 | 15 |
| Calhoun ${ }^{\text {Callahan } . . .}$ ． | 287 | 238 | 27 | 18 | Hopkins | 637 | 2，756 | 199 | 30 |
| Cameron | 663 | 685 | 78 | 15 | Houston | 755 | 1.389 | 230 | 26 |
| Camoron | 1，611］ | 2081 |  | ＊ | Howard | 204 | 479 | 78 | － |

Fete for U. S. Senator-Continued.

| Counties-.- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Hunt | ${ }_{16}^{968}$ | 2, 118 | 1.165 | 94 |
| Irion. | 104 | 105 | 43 |  |
| Jack | 325 | 687 | 105 | 6 |
| Jackson | 234 | 260 | 40 |  |
| Jasper Davi | 8 | 16 |  |  |
| Jefferson | 1.567 | 1,374 | 150 | 8 |
| Jlim Wells... | 1.040 | 2.577 | 611 | 28 |
| Jones | ${ }^{6} 605$ | 1,528 | 169 | 14 |
| Karnes | 943 | 467 | 55 |  |
| Kaurman | 1.306 | 2,30 | 38 | 8 |
| Kendal | 118 | 142 | 37 |  |
| Kerr | 320 | 244 |  |  |
| Eimble | 228 | 131 | 27 |  |
| King. | 22 | 41 | 10 | 5 |
| Kinox | 326 | 527 | 133 |  |
| Lamar | 959 | 8,705 | 309 | 35 |
| Lampasä | 363 | 619 | $\dot{8}$ | O |
| LaSalle. | ? 913 | 03 | 15 |  |
| Lavaca. | 2,351 | 343 | ${ }^{68}$ | 7 |
| Lee ${ }^{\text {b }}$ | 886 | 1,027 | 120 | 17 |
| Liberty | 573 | 470 | 49 | 19 |
| Limestone | 808 | 1,828 | 298 | 25 |
| Lipscomb | 35 | 58 | 12 |  |
| Llano ... | 497 | 364 | 105 | 6 |
| Loving |  |  |  | 6 |
|  | 44 | 176 | 19 |  |
| Madison | 288 | 714 | 137 | 13 |
| Marion | 76 | 40 | 1 |  |
|  | 233 | 200 | 4 |  |
| Matagorda | 564 | 484 | 49 |  |
| Maverick ... | 36 | 35 | 9 |  |
| McCuiloch | 409 | 600 |  | 8 |
| McMullin | ${ }^{41}$ | ${ }^{3,38}$ | 1,19 | 8 |
| Medina .. | 511 | 237 | 18 | 1 |
| Menard - | 211 | ${ }^{68}$ | 31 |  |
| Milam | 1,599 | 1,515 | 403 | 2 |
| Mils | 323 | 550 | 78 | 7 |
| Mitchell | 198 | 767 | 析 |  |
| Montague | 814 | 1,300 | 523 | 1 |
| Yoore ... | 30 | 67 | 20 | 5 |
| Morris | 247 | 787 | 35 |  |
| Motley $\mathrm{Nacomdoches}$. |  | 1.477 | 377 | 2 |
| Navarro | 1.470 | 2,487 | 748 | 31 |
| Newton | 217 | 323 | 58 | 16 |
| Nolan ${ }^{\text {Nueces }}$ | 410 | 812 | 109 | 18 |
| Ochiltree | 50 | 71 | 25 | 5 |
| Oldham .. | $4{ }^{4}$ | 12 | , |  |
| Orange | 424 | 442 | 47 | 7 |
| Panola | 689 | 1,042 | 137 | 1 |
| Parker | 836 | 1,913 | 204 | 48 |
| Parmer . | 62 |  | 21 | 8 |
| Pelk | 510 | 710 | 153 |  |
| Potter | 412 | 912 | 185 | 15 |
| Presidio | 151 | 82 | 9 |  |
| Rains . . . | 132 | 297 | 251 | 7 |
| Randall | 148 | 210 | ${ }_{6} 1$ | 2 |
| Red Rive | 597 | 2.571 | 182 | 0 |
| Reeves. | 114 | 325 | 67 | 3 |
| Refugio | 112 | 50 | 6 | 2 |
|  | 728 | 1.054 | 180 | ${ }_{2}^{1}$ |
| Rockwall | 276 | 1.646 | 59 | 175 |
| Runnels | 0 | 1,108 | 141 | 10 |
| Rusk | 838 | 1,663 | 113 | 29 |
| gankugustine | 800 | C03 | 195 | 180 |

Vote for U. S. SenatormContinued.

| Counties- | 它 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| San Jacinto.. | 219 | 821 | 50 | 3 |
| San Patricio. | 208 | 918 | ${ }_{90}^{18}$ | 1 |
| Schleicher... | 96 | 136 | 18 | 1 |
| Scurry | 329 | 808 | 125 | 11 |
| Shackelford.. | 140 | 261 | 54 | 4 |
| Shelby ${ }^{\text {Sherman }}$..... | 903 83 | 1,601 | 360 | $\stackrel{2}{3}$ |
| Smith. | 683 | 1,872 | 559 | 24 |
| Somervell | 187 | 239 | 34 | ${ }^{6}$ |
| Stephens | 325 | 458 | 101 | 6 |
| Sterling ... | 76 | 142 | 36 | 1 |
| Stonewall ... | 167 | 307 | 85 | 9 |
| Sutton. | 110 | 104 | 24 | 8 |
| Tarrant | 4,328 | 5,301 | 968 | 119 |
| Taylor | 739 | 1,615 | 171 | 16 |
| Terrell $\quad . . .$. . | 33 |  |  |  |
| Throck moriorion | 133 | ${ }_{333}^{131}$ | 5 | 4 |
| Titus ... | 320 | 1,258 | 107 | 7 |
| Tom Green... | 715 | 872 | 194 | 6 |
| Travis | 2,747 | 2,191 | 873 | 30 |
| Trinity ...... | 518 | 508 | 60 | 25 |
| Upshur ${ }^{\text {Tyler }}$...... | 384 | 1,618 | 255 | 18 |
| Upton | 31 |  | 9 |  |
| Uvalde | 281 | 544 | 56 | 17 |
| Val Verde | 71 | ${ }^{69}$ | 13 | 4 |
| Victoria. | 1,200 | 1.345 | 50 | 1 |
| Walker | 497 | 534 | 90 | 6 |
| Waller ...... | 474 | 389 | 55 | 7 |
| Ward ....... | 78 | 168 | 6 | 5 |
| Washington.. | 1,903 | 21 | 12 | 1 |
| Wharton | 703 | 526 | 53 | 3 |
| Wheeler ..... | 119 | 331 | 112 | 20 |
| Wichira | 544 |  | 243 | 10 |
| Wilbarter | 73 | 740 | 243 | 10 |
| Williamson... | 1,867 | 2,015 | 363 | 47 |
| Wilson. | 1.082 | 615 | ${ }_{8}^{68}$ | 42 |
| Winker | 798 | 2,350 | 194 | 24 |
| Word | 862 | 1,483 | 184 | 45 |
| Yoakum | 란 | 5 | 27 | 2 |
| Young | 285 | 1,085 | 82 | 8 |
| Zapata |  |  |  |  |
| zavala |  |  |  |  |

Totals....|146,214|182.007| 40,693| 3,960

## PRIMARY VOTE. 1912.

## Cnited States Semator.

I. F. Wolters..............................146.214

Morris Sheppard...........................182,907
C. B. Randell............................. 40,693

Governor.
O. B. Colquitt.
W. F. Ramsey.................................... 178.808

## Lieutenant Governor.

W. M. Imboden....................... 158,171

Controller.
Bob Barker.
................. . . . . . . . 168, 083
.............................209,600
Attorney General.
B. F. Looney
....................... . . . 130,775

State 'Preamurcr.
J. M. Edwards . . . . . . . . . . . . . . . . . . . . 145,012
W. 2. Adams.......................... 63,012



## PRIMARILS, 1910.

For Governor.

Name-Poindexter................... 80.080
Willam
R. V. Davidson...................... 53.367
R. V. Davidson......................................367


PRIMARIES, 1908.
For Governor.
Name-
Vote.
Tom Campbell.
206.038
R. R. Williams.

119,378

## GENERAL ELECTION <br> IN TEXAS, 1912

Following are returns of the general election in Texas for 1912: For President.

Chafin, Prohibition. ..... 1,739
Debs, Socialist ..... 25,749
442
For Governor.
Name- Vote
Colquitt, Democrat. ..... 233,094
, Progressive ..... 22,541
Houston, Prohibition. ..... 2,414
Andrews, Socialist...... ..... 275
Constituifonal Amendments.For home rule in cities of $\overline{0}, 000$population or more................. 1120,715
Against
42,759
42,759
For slx-year terms for Prison Com-
missioners ..... 91,004
Against ..... 69,852
For six-year terms for boards of
State institutions..................... 1 ..... 107,917
Against 5 c tax for Coniederate pen- ..... 44,775 ..... 135,133
sions
sions
Against ..... 41, 707
Constitutional Amendments.
(1913).

The official report of the canvass of the vote on proposed constitutional amendments, election July 19, 1913, was reported by the Secretary of State as follows, the returns from sixty-three counties, including Harris, Tarrant and McLennan, being missing:

The University of Texas bond amendment was defeated by a vote of over six to one, the majority against the amendment being 100 ,989. The canvass of the returns showed the following vote on the amendments:
For Prescribing additional qualificatfons of District Judges...... 25,329 Against
For proviang a salary compensa-
tion of State and county off1Agalnst

29,367
108,254
For authorizing issuance of bonds
for the University of Texas, A.
\& M. College State penitentlary
system and other public improve-
ments and bujlding of ware
houses for agricultural products 19,745 Against

No returas were received from the following counties: Armstrong, Bell, Brazoria, Briscoe, Cameron, Camp, Cass, Cooke, Culberson, Dawson, Erath, Falls, Gray, Gregs, Grimes, Guadalupe, Hale, Hall, Hardin, Hidalgo, Harris, Haskell, Hill, Houston, Hunt, Hutehinson, Jeff Davis, Jefferson, Karnes, Kinney, Liberty, Lipscomb, Limestone, Mason, McLennan, Milam, Navarro, Nolan, Nueces, Oldham, Palo Pinto, Parmer, Pecos, Presidio, Sabine, San Augustine, San Jacinto, Shelby, Somervell, Sutton, Tarrant, Tom Green, Trinity, Tyler, Waller, Wharton, Wilbarger, Willacy, Winkler, Young and Zapata.

## PAST GUBERNATORIAL

## ELECTIONS IN THXAS

## F'IRST FLLECTION, 1845.

J. P. Henderson ..... 7,853
J. B. Miller
J. B. Miller ..... 1,673 ..... 1,673
Scattering ..... 52
Total vote. ..... 0,578

SECOND ELECIION, 1847.Qcattering . . . . . . . . . . . . . . . . . . . . . . . .

Total vote. . . . . . . . . . . . . . . . . . . . . $\mathbf{1 4 , 7 6 7}$
THIRD ELECTION, 1849.

10.319

John T. Mills................................
Total vote. . . . . . . . . . . . . . . . . . . . 21,715
FOURTH ELEETION, 1851.
P. H. Bell.

13,595
M. T. Johnson.

John A Greer.
B. Hpperson B. J. Chambers. scattering

K, 262
2,320

Total vote. . . . . . . . . . . . . . . . . . . . . 28,309
FIFTH ELECTION. 1853.
E. M. Pease. . . . . . . . . . . . . . . . . . . . . . 18,091

B Ochiltree . . . . . . . . . . . . . . . . . .
George T. Wood
5,983
4.677
$\mathbf{8}$
T. J. Chambers
2.448

Total vote. . . . . . . . . . . . . . . . . . . . . . 35,693
SLXTH ELECTION, 1855.
E. M. Pease.
26.336
D. C. Dickson

18,968
M. T. Johnson.

226
Total vote. . . . . . . . . . . . . . . . . . . . . . 46, 439
SEVENTH ELECTION, 1857.

Total vote. . . . . . . . . . . . . . . . . . . . 61,180 EIGHTE ELECTION, 1859.
Sam Houston. . . . . . . . . . . . . . . . . . . . . 36, 227
H. R. Runnels. . . . . . . . . . . . . . . . . . . . . . 27,500 Scattering

Total vote
63,788
NINTH ELECTION, 1861.
F. R. Lubbock . . . . . . . . . . . . . . . . . . . 21, 854

Edward Clark
21.730
T. J. Chambers. . . . . . . . . . . . . . . . . . . 13.759

Total vote. . . . . . . . . . . . . . . . . . . 57,343
TENTH ELECTION, 1863.
Pendleton Murrah. .................... 17,511
T. J. Chambers. . . . . . . . . . . . . . . . . . . . . 12,455

Scattering . . . . . . . . . . . . . . . . . . . . . . . 1,070
Total vote. . . . . . . . . . . . . . . . . . . . 31,036
ELEVENTH ELECTION, 1866.
J. W. Throckmorton . . . . . . . . . . . . . . . 49, 277
E. M. Pease. . . . . . . . . . . . . . . . . . . . . . . . . 12,168

Total vote. . . . . . . . . . . . . . . . . . . . . 61,445
TWELFTH ELECTION, 1869

$\begin{array}{r}380 \\ \hline\end{array}$
Total vote. . . . . . . . . . . . . . . . . . . . 79,873
THIRTEENTH ELECTION, 1873
Rlchard Coke. . . . . . . . . . . . . . . . . . . . . . 85,549
E. J. Davis. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 42, 42,633

Total vote. . . . . . . . . . . . . . . . . . . . . 128,182
FOURTEENTH ELECTION, 1875.
*Richard Coke
150.581

Whilam Chambers............................. 47,719
Total vote, . . . . . . . . . . . . . . . . . . . . . 198,300
FIFTEENTH ELECTION, 1878
158,933
O. M. Roberts ..... E5,002
W. H. Hamman
28,402
28,402
Bcattering
237,436 Total vote ..... 237,436
SIXTEENTH ELECTION, 1880
O. M. Roberts ..... 166.101
E. J. Davis33,721
Total vote 264,204
SEVENTEENTH ELECTION. 1882.
John Ireland ..... 150,809
George W. Jones. ..... 102,501
Total vote ..... 258,644
ETGHTEENTH ELECTION, 1884
John Ireland. . . . . . . . . . . . . . . . . . . . . 212,234
A. B. Norton ..... 88,450
25,557
Total vote ..... 326,241
NINETEENTH ELECTION, 1886.
-. S. Ross ..... 228,776
E. M. Cochran. ..... 65.236
19,186
Scattering ..... 102
Total vote ..... 313,300
TWENTIETH ELECTION 1888I Marion Martin. . . . . . . . . . . . . . . . . . . . . . . . . . . $9.980,447$
Total vote ..... 348,785
TWENTY-FIRST ELECTION, 1890.
J. S. Hogg. ..... 262,432
E. C. Heath ..... 2,235
Total vote 342,409
TWENTY-SECOND ELECTION, 1892
J. S. Hogg. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 130, 13896
T. L. Nugent 108,483
D. M Houston ..... 1.322
Scattering ..... 176
Total vote ..... $.435,467$
TWENTY-THIRD ELECTION, ..... 1894.
C. A. Culberson ..... 1507,167
W. L. Nugent. 54,520
J. B. Schmidtz. .....  5,086
J. M. Dunn ..... 2,196
Total vote ..... 422.716
TWENTY-FOURTH ELECTION. ..... 1896.
C. A. Cuilberson ..... 298,528
Randolph Clark ..... 1,876
scatterlng
.039,778
TWENTY-FIFTH ELECTION, 1898.
J. D. Sayers.. ..... 291,548
R. P. Bailey. ..... 2,437
. H. Royal ..... 552
Total vote ..... 409,554
TWENTY-SIXTH ELECTION, 1800.
J. D. Sayers. ..... 308,586
R. E. Hammay 112, 864
G. H. Royall. ..... 26,864
Scattering ..... 6,155
Total vote ..... 449.624

| TWENTY-SEVENTH ELECTION. 1902. <br> S. W. T. Lanham...................... 219.076 <br> George W. Burkett........................ 65,706 <br> J. M. Mallett. ............................ 12,387 <br> G. W. Carroll. <br> 8,708 <br> scattering <br> 3,273 | THIRTY-FIRST ELECTION. 1910. <br> Q. B. Colquitt............................. 174,586 <br> A. J. Houston. <br> 28,191 6,052 <br> Redding Andrews <br> Cerl Schmidt. |
| :---: | :---: |
| Total vote. . . . . . . . . . . . . . . . . . 309, 150 | To |
| TWENTY-EIGHTH ELECTION, 1904. |  |
| 8. W. T. Lanham. . . . . . . . . . . . . . . ${ }^{\text {206,167 }}$ | Fd Lasater........................... 18 |
|  | A J. Houstion.................. |
|  | Redaing Anirews . . . . . . . . . . . . . . . ${ }^{\text {20,2, }}$ |
| Frank Leltner........................ ${ }_{\text {, }}^{651}$ | Johnson |
| W. H. Mills...., $, \ldots, \ldots, \ldots, \ldots, \ldots$, , 2,487 |  |
| Total vote. . . . . . . . . . . . . . . . . . .279,881 | Total vote. . . . . . . . . . . . . . . 300,983 |
| TY-NI | overnor of Texas at the resigna |
| mpbell. . . . . . . . . . . . . . . . . 149, 16 | ov. Richard Coke. |
| 28,7 |  |
| W. Pearton..............., $, \ldots, \ldots$. $\mathbf{2 , 2 1 5}$ | (10N GLECMION |
|  | xas).For Asain |
| A. 8. Dowler. . . . . . . . . . . . . . . . . . . . 260 | Prohibi- Prohibl |
| al vote. . . . . . . . . . . . . . . . .183,704 |  |
| THIRTIETH ELECTION, 1:08, |  |
|  |  |
| Rhodes. . . . . . . . . . . . . . . . . . . . 8.100 | sain |
| William B. Cook. . . . . . . . . . . . . . . . . 234 | 1910 . . . . . . . . . . . . . . . . . 159,406 131,324 |
| E. C. Heath. . . . . . . . . . . . . . . . . . . 148 | Note-For vote on prohibition and mub- |
| Total vote. . . . . . . . . . . . . . . . . . . 300,743 | mission in Texas by counties, see Texal Almanac for 1912. |

PRESIDENTIAL ELECTION, VOTE BY STATES, 1912.

| Stato- | Wilson. Dem. | $\begin{aligned} & \text { Tart } \\ & \text { Retion } \\ & \text { Rerk } \end{aligned}$ | Roomevalt, Pros. | Debs, 8oc. | $\begin{gathered} \text { Charin, } \\ \text { Pro. } \end{gathered}$ | Reimer, Soc.-Lab. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Altizona |  |  |  | 8,169 |  |  |
| Arkansas | 68,888 | 24,297 | 21.6 | 8,153 | 898 |  |
| California | . $.283,436$ | 3,914 | 288.610 | 79,201 | 23,368 |  |
| Comnecticuit | ${ }^{114.223}$ | ${ }_{68,384}$ | 72,306 | 16.418 10.056 | ${ }^{5} 5.088$ | + 475 |
| Delaware | 22,631 | 15,998 |  | 556\% | ,623 |  |
| Mlorida | 36.417 | ${ }_{8}^{4}, 279$ | +4.635 | ${ }_{1}^{4.806}$ | 1,859 |  |
| Idaho | 33,921 | 32,810 |  |  |  |  |
| nlinois | 405.0 | 253,618 | 386,478 | 81, 278 | is, io | 1.088 |
| Indiana | 281,890 | 151,267 | ${ }^{162.007}$ | 88,831 | 19,249 | 3,130 |
| Kowa | ${ }_{143,} 180$ | 119,811 | ${ }^{161.783}$ | ${ }_{28,907}^{16,914}$ | 8,437 |  |
| Kentuck | 219,584 | 115.612 | 102,766 | 11,647 | 3,233 | 9̈s் |
| Louisiana | 60.960 51.113 | - ${ }^{38,8545}$ | 48,823 | \%,192 | ${ }^{945}$ |  |
| Maryland ${ }^{\text {a }}$. ${ }^{\text {a }}$ | 112,674 | 54,658 | 57\% 788 | 8,988 | 2,244 | $3{ }^{2} 2$ |
| Masaachusetts | 1780. | ${ }_{155}^{15048}$ | ${ }^{142.228}$ | 12.618 | 2.754 | 1,102 |
| Minnesota | .100,428 | ${ }_{6}^{152,244}$ | 125,868 | - 27.505 | 7,886 | ${ }_{2}^{1.212}$ |
| Missisip | 57.184 | ${ }^{1} 1515$ | ${ }^{3,627}$ | 2.017 |  |  |
| Montana | 38,239 | 207.829 | 124.371 22.48 | 28,468 | 6,380 | 1.778 |
| Nebraska | 109.109 | ${ }^{1 / 3488}$ | 72.786 | ${ }^{10.219}$ | 3,419 ${ }^{\text {a }}$ | ........ |
| Nevada Hamps |  | ${ }_{82,927}$ | 17.794 | 1,981 |  |  |
| Now Jorsey. | .178.2 | 81895 | 145.410 | 15,801 | 2,878 | 1.322i |
| New Mexico.. | .055,478 | -170,428 | 300.021 | 63.889 | 10,9\%27 | $4.25 i$ |
| North Caroiina | 144,507 | 29.139 | 60.130 |  |  |  |
| North Dakota | - 2989.150 | ${ }_{27}^{23,0090}$ | 229.728 | \% ${ }^{6,986}$ | 11,2439 | 2828 |
| Ontahiomi | .119.158 | 80.786 | 229.327 | 828.82 | 11.185 | 2,623 |
| Oregon | 47,064 | 94.678 | -87. 600 | 18,343 | 4.360 |  |
| Pennsylvania | \% 30.1 | 27.203 | 447,498 | $\stackrel{83.164}{2}$ | 19,638 | 704 |
| South carolina | 48,36 | 21,636 | 16.243 | ${ }^{2} .049$ | 616 |  |
| South Dakota | 48.942 |  | 58.811 | 4.662 | 8,910 |  |
| Tennessee | 130,335 | 5. 8.44 | 63, 7 25 | 8, 392 |  |  |
| Texay. | 221.5 | - 28.100 |  |  | 1,738 | 442 |
| Vermont | 15.350 | 23,305 | 22.070 | 828 | i,ioi |  |
| Virginia | ${ }^{90.332}$ | 23.288 | 21.777 | 820 | 709 |  |
| West ${ }^{\text {Washing }}$ | ${ }_{11368187}$ | 70,75 | 113.008 | 40.134 | 8,810 | 1,872 |
| Wisconsin | -184,409 | 130, 878 | -8.162 | ${ }_{34} 12.168$ | 8,467 | 88 |
| Wroming | . 15.310 | 14.580 | 9,232 | 2,760 | 434 |  |

## Presidential Election-Continued. TOTALS.

| Wilson | 6,293.454 |
| :---: | :---: |
| Taft | 3.484,980 |
| Roosevel | 4,113,538 |
| Debs | 900.672 |
| Chafin | 206,275 |
| Reimer | 28,760 |
| Tota | 15,033,669 |

Popular vote, Wilson over Roose-
velt $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$ 2,173,916
Popular vote, ath others com-
bined, over Wilson............ 2,446,761
The Electoral Vote.

| State- |  |  | 兵 |  |
| :---: | :---: | :---: | :---: | :---: |
| Alabama | 59,750 D | 12 |  |  |
| Arizona | 3,375 D |  |  |  |
| Arkansas | 44,544 17 | 2 |  | j1 |
| Colorado | 41,917 D | 6 |  |  |
| Connecticut | 6.237 D |  |  |  |
| Delaware | 6.631 D | ${ }_{6}$ |  |  |
| Florida Georgia | 31.611 71.161 D | 14 |  |  |
| Idaho | 1.111 D | 4 |  |  |
| Illinois | 119.883 | 9 |  |  |
| Iowa | 23.593 D |  |  |  |
| Kansas | 23.047 D | 10 |  |  |
| Kentucky | 104.072 D | 13 |  |  |
| Loulsiana | 51.637 D | 10 |  |  |
| Maryland | 54.888 D | 8 |  |  |
| Massachusetts | 17,460 D | 18 |  |  |
| Michigan | 62,340 P |  |  | 15 |
| ${ }_{\text {Minnesota }}^{\text {Mississipp }}$ | 19.430 P |  |  | 1:2 |
| Missourl | 122,925 D | 18 |  |  |
| Montana | 5.782 D | 4 |  |  |
| Nebraska | 86,333 D | 8 |  |  |
| Nevada Nampshir | 2.381 D | 3 |  |  |
| Now Jersey. | 32,879 D | 14 |  |  |
| New Mexte | $\begin{array}{r} 2.704 \mathrm{D} \end{array}$ | 4 |  |  |
| New York. | 200.047 D | 45 |  |  |
| North Carolina North Dakota. | 75.377 D | 12 |  |  |
| Ohio | 148.086 ${ }^{\text {D }}$ | 24 |  |  |
| Oklahoma | 28.370 D | 10 |  |  |
| Oregon <br> Pennsylvanij |  | 5 |  |  |
| Rhode Island. | 2.709 D | 5 |  |  |
| South Carolina South Dakota. | 47,062 ${ }_{\text {9,869 }}$ | 9 |  |  |
| Tennessee | 70.891 D | 12 |  |  |
| Texas | 192.736 D | 20 |  |  |
| Utah | 5,521 R |  | 4 |  |
| Vermont | 1,235 R |  | 4 |  |
| $\checkmark$ Virginia Washington | 67.044 ${ }_{26.85}^{\text {P }}$ |  | .... |  |
| West Virginia | 34.085 D | 8 |  |  |
| Wisconsin | 33.531 D | 13 |  |  |
| Wyoming | 750 D | 3 |  |  |
| Totals.. | ......... | 435] | 81 | 88 |

## APPROPRIATIONS BY CONGRESS

 1907 . . . . . . . . . . . . . . . . . $\$ 549,434,246$1908 . . . . . . . . . . . . . . . . . 555.739,443

1909 . . . . . . . . . . . . . . . . 627,516,246
1910
648,191,676
1911
663,725,794
634.549,661
617.382,178

## THE NATIONAL CAPITOL.

The Capitol at Washington fronts east and stands on a plateau eighty-eight feet above the level of the Potomac River. The entire length of the building north and south is 751 feet 4 inches and its greatest dimension from east to west is 250 feet. The area covered by the building is 152,112 square feet.

The dome of the original central building was constructed of wood, covered with copper. This was replaced in 1856 by the present structure of cast iron. It was completed in 1865. The entire welght of iron used is $8,909,200$ pounds. The dome is crowned by a bronze statue of Freedom, which is 19 feet 6 inches high and weighs 14,955 pounds. It was modeled by Crawford.

The height of the dome above the base line of the east front is 287 feet 5 inches. The greatest diameter at the base is 135 feet 5 inches. The rotunda is 97 feet 6 inches in diameter and its height from the floor to the top of the canopy is 180 feet 3 inches.

## SOUTHERN TRADE.

American trade with the republics to the south amounts to $\$ 1,000,000$ for every business day. The figures are published by the Department of Commerce, Washington, and show the vast extension of business between Latin America and the United States during the last decade.

The value of exports from the United States to all South America in the fiscal year ending June 30 , 1913. was $\$ 321,000,000$ against $\$ 108,000,000$ in 1900 , an increase of 197 per cent. While the exports to other parts of the world were increasing but 67 per cent.

## WEALTH OF NATIONS.

| Latest esimates <br> United States.... | . . . . $\$ 130,000.000,000$ |
| :---: | :---: |
| Great Britann and | Irelind 80.000 .000 .000 |
| France | 65,000.000.000 |
| Germany | 60,500.000.000 |
| Russia | 40,000,000,000 |
| Austria-Hungary | 25,000,000,000 |
| Italy | 20,000,000.000 |
| Eelgium | 9,000,000,000 |
| Spain | 5,400,000,000 |
| Netherlands | 5,000,000.000 |
| Portugal | 2,500.000,000 |
| Switzeriand | 2,400,000,000 |

The guns to he mounted in the Panama Canal defenses will have a range of twenty-one miles.

The Balkan-Turkey War and the war between the Balkan States which immediately followed in 1913 cost 400,000 lives and $\$ 1,360,000,000$ in money.

Seventy-six per cent of the fires in Texas hare been classed as preventable by the Texas Fire Insurance Commission.


COUNTIT OFFICHRS—Judges, Superinterdentw, Attorneym.
Connty Oficern＿－Judges，Superintendentm，Attorneys＿Continued．

Superintendent of Schools

| W．Cyphers |
| :---: |
| E．R．Elkin |
| T．C．Whllame |
| J．H．Saunders |
| J．L．Jennings |
| W．S．Harrls |
| R．A．Mars |
| Fred J．Shipley |
| W．L．Dean |
| John Hurley |
| J．F．Mangum |
| S．A．Penix |
| W．H．Ibbotson |
| Ben H．Wickwar |
| F．Foke |
| C．C．Bock |
| J．W．Bagby |
| A．D．Rawlinson |
| J．P．Wea |
| L R．Pfetzsch |
| A．C．Jones |
| W．C．Ogier |
| J．W．Carrell |
| L．T．Cunningham |
| Pearl Rouden |
| J．B．Weaver |
| J．W．Lawhon |
| B．L．Glenn |
| Lee Wallace |
| J．B．Randolph |
| James H．Lynn |
| Joseph Veltmann |
| B．F．Wllson |
| J．H．Milam |
| W．H．Snow |
| C．H．Curl |
| M．M．White |
| C．C．Thomas |
| Whilam Eilers |
| C．M．Bishop |
| J．M．Henderson |
| I．B．Simmons |
| J．R．Atkins |
| P．B．Mills |
| Frank H．Church |
| A．H．Wilburn |
| E．R．Halnes |
| L．St |
| W．W．Sharp |

$\quad$ County Judge．
Ceorge H．Huffinan
E．R．Enkin
A．J．Smith
J．R．Wilhelm
J．L．Jennings
C．D．Owen
J．H．Edwards
S．Dtephenson
W．L．Dean
Dan R．Junell
C．M．Elus
S．A．Penix
Ben H．Wlekware
W．F．Fhkes
J．P．Simpson
J．W．Bagby
Garland Smith
J．P．Weatherby
Robert H．Wilson
A．C．Jones
W．Rerkins
J．B．Haynes
Joe C．Randel
C．L．Bell
J．A．Cooley
J．W．I，quhn
B．Llenn
Lee Wallace
J．B．Randolph
James H．Lynn
Josenh Veltmann
B．F．Wilson水会为 P．H．Green
 Blackmon空


 Counties．

County officerm-Judgen, Superintendents, Attorneys-Continued.

| Superintendent of Schools | County Attorney |
| :---: | :---: |
| Miss Alice Emmert | George T. Todd |
| C. Eldson | S. W. Pratt |
| Glenn W. Smith | John T. Banks |
| Thomas H. Lewla | Richard R. Lewis |
| E. L. Peterson | J. R. Murray |
| R. L. Abbott | John B. MeDonald |
| L. W. Hill |  |
| ${ }^{\mathbf{W}}$ W. N. Saathoff | R. J. Noonan |
| J. H. Knowles | Earl Anderson |
| F. J. Clement | W. W. Chambers |
| A. J. Coe | T. J. Coffech |
| W. W. Snodgrass | Paul Donald |
| J. T. Terry | R. J. Sullivan |
| C. M. Henderson | o.. ${ }^{\text {c. Pouns }}$ |
| C. B. Whitten | A. B. Crane |
| W. B. Harcis | S. M. Adams |
| $\stackrel{\text { O. }}{\text { W. }}$. L. ${ }_{\text {E }}$ Albritton | Dexter Hamilion |
| John L. Ross | Charles W. Lew i |
| Nat Benton | James M. Taylor |
| R. J. Hanna | W. F. Shipp |
| O. R. Sholara | Frank Hatton |
| A. F. Jones | W. F. Smith |
| C. L. Beason | P. P. Loff |
| James D. Hamlin | J. Epp Carter |
| B. A. Rolling | Charles T. Halton |
| Jesse H. Taylor | Cade Bethea |
| W. M. ${ }_{\text {W. }}{ }^{\text {W. Byrd }}$ | Ray C. Johnson |
| J. B. Altred | D. M. Rodes |
|  | W. J. Flasher |
| W. H. Carr |  |
|  | B. C. Jones |
| Leslie Adkins |  |
| $J_{\text {J }}$ E. Kinney | J. A Holmes |
| ${ }_{J}^{\mathrm{J}} . \mathrm{A} . \stackrel{\text { Bush }}{\mathrm{W}}$ | ${ }^{\text {J. }}$. Y. McNutt |
| F. L. Hagan | Charles P. Shepherd |
| C. A. Jay | James Y. Gray |
| Miss Lille Hazle | A. M. Huffman |
| E. W. Lewls | J. C. Browder |

County Officern－Judges，Superintendents，Attorneys－Continued．






 Schielcher．．．．
Sharkelford
Shelby

泉的它
 Throckmorton Titus Green． Tom Green． Travis
Trinfty
Tyler Tyler

$\stackrel{N}{\alpha} \frac{\pi}{2}$
兵采：






Winkie

Yoakum
我

| Countles. | County Clerk. | District Clerk. | Surveyor. | Sherify. |
| :---: | :---: | :---: | :---: | :---: |
| Anderson | C. O. Maller | 覅 T. McCain | W. L. Horn | J. L. Boyd |
| Andrews Angellna | T. M. Smith |  | Boyd Douglas | T. W. Craddock |
| Aransas... | J. C. Herring | $\mathrm{J}^{\text {c }} \mathrm{C}$. Herring | F. Perctiot | H. T. Bafley |
| Archer | George W. Alexander | George W. Alexander | J. G. Gaston | C. E. Goodwin |
| Armstrong | E. C. Cayton ${ }^{\text {I }}$ Morgan ${ }^{\text {a }}$ | E. C. Cayton | J. S. Stallines | R. C. Rodgers |
| Austin ... | George S. Cumings | $\mathrm{F}_{\text {Fed }}$ L. Tesch | J. H. Machemehl | William Paim |
| Bandera | W. R. Fletcher | W. R. Fletcher | Joe Chisum | R. S. Smith |
| Bastrop | H. H. Alexander | Leo D. Olive | Charles Lehman | Woody Townsend |
| Baylor | S. H. Post | Elmer Graham | A. D. Kerr | W. L. Elils |
| Belt | P. B. Madison | E. E. Upshaw | S. D. Hanna | J. A. Blair |
| Bexar | Frank R. Newton | Andres doy Jr. | Whllam Locke | John W. Tobin |
| Blanco | B. J. Stubbs | B. J. Stubbs | Richard Klappenback | J. R. Johnson |
| Borden | J. S. W. Cuthirth | Jobert Summers | Mack Betelson | W. A. Clark |
| Bosque | Joe White | $\mathrm{S}_{\mathrm{S}} \mathrm{C}$. Lyynch | W. V. Slmms | $\mathrm{Him}_{\text {Himager }}$ |
| Brazorla | Robert C . Shirley | Wade Phillips | E. S. Adkinson Jr. | J. A. Wright |
| Brazos ${ }^{\text {Brewster }}$ | W. S. Higgs | J. W. Barron | ${ }_{\text {Hoe M M }}$ | J. D. Conlee |
| Briscoe | T. L. Anderson | T L Anderson | H. P. Jones | Miner Crawford |
| Brooks | Charles Phillips | Charies Phillips | F. C. Bahlmann | Amado Garza |
| Brown | D. M. Scott | Tom Leach | Mark Ragsdale | M. H. Denman |
| Burnet | Hardee Chamberlain | Warlin Wilson | E. J. Moses | O. B. Zimmerman |
| Caldwell | W. E. McDowell | T. H. Brown Sr. | J. D. Chapman | J. H. Franks |
| Calhoun | C. F. Ehilnger | C. F. Ehlinger | H. P. Helmbeak | J. D. O'Nell |
| Callahan | R. L. Sur ${ }_{\text {Weps }}$ | A. R. Day | T. H. W. Amthor | C. F. T. Rains |
| Camp | Joer R. Hooton | F. H. Goodjohn | H. F. Black | D. H. Carpenter |
| Carson | H. H. Cleek | H. H. Cleek | Frank Elston | J. W. Wood |
| Castro | R. A. Holland | R. A. Holland | J. F. Easter | Roy F. Barber |
| Chambers | J. R. Wooten | J. R. Wooten | T. A. Jenkins | F. R. LaFour |
| Cheroke | E. D. Splnks | J J. Boiton | C. H. Hill | E. C. Martin |
| Clay | T. T. Haney | F. W. Coleman | R. W. Watkins | G. P. Jones |
| Colema | R. E. Douglas Jr. | R. E. Douglas Jr. | T. E. Puett | Will Hickman |
| Collt | G. E. Strother | A. S. Wheatley | C. Ẅ. Noyes | A. T. Robertion |
| Collingsworth | O. L. Couch | O. L. Couch | S. T. Smith | L. T. Sullivan |
| Colorado | John Hastedt | W. C. Papenberg | A. F., Mitchell | E. B. Mayes |
| Comal | Fred Tausch Smith | Fred Tausch | Alfred R. Rothe | W. H. Adams |
| Concho | J. B. Waide ${ }^{\text {M }}$ | 5. B. Waide | ${ }_{\text {James }}$ M. Slmpson | Werren Puett |
| Cooke | D. E. Cleveland | James K. Rudolph | S. J. Brazelton | Lewls Bringman. |
| Coryell | ${ }_{\text {A. }}^{\text {A. }}$ C. ${ }^{\text {F. McCitnton }}$ Dulaney | R. B. Cross | John Canileld | E. B. McMordio |
| Crottle ${ }_{\text {Crate }}$ | ${ }_{\text {Tom }}{ }^{\text {A. }}$ Nolen ${ }^{\text {Dulaney }}$ | Tom Nolen | Frank ${ }_{\text {John }}$ W. Friend | Jim Moore |

COUNTY OFFICRIS-County Clerk, Distrlet Clerk, Surveyor, Sheriff.
County Officerg-County Clerk, District Clerk, Surveyor, Sheriff-Cont.


Comnty Officers-County Clerk, Dintrict Clerk, Surveyor, Sheriff—Cont.

County Officers-County Clerk, District Clerk, Surveyor, Sherifi-Cont.




Counties.


| Sheriff. |
| :---: |
| J. B. Boles |
| W. M. Blggs |
| B. H. Truitt |
| W. R. Gamble |
| Joe Land |
| P. E. Currio <br> Juan C. Gonzalez |
|  |  |
|  |
| Deo Davis |
| F. O. Senter |
| T B. Adams |
| D B. Craw ford <br> W. M. Rea |
|  |  |
|  |
|  |
| George E. Tiernan |
| John Cooper |
| Hawley Allen |
| Goorge $s$. Mathews |
| 位. T. Parsons |
|  |  |
|  |
| A. F. Schnaubert |
|  |  |
|  |
| J. R. Kellis |
| F. N. Weisiger |
| 7. A. Farrls |
| H. C. Cantrell |
| D. Ei Teague |
| Amador Sanchez |
| Robert Koehl |
|  |
|  |  |
|  |
| John T. Love |
| Lo O. Allen |
| W. L. Wright |
| W. A. Priest |
| Sam Faith |
| D. F. Chrettzbors |
| J. C. Keller |
| O. H. Brown |
| A. M. Cuellar |
| G. C. Miller |

County Offleern-County Clerk, Dintrict Clerk, Surveyor, Sheriff-Cont.


| Tax Assessor． | Tax Collector |
| :---: | :---: |
| O．B．Rogers | H．H．Fitzgerald |
| A．H．Hall | T．W．Craddock |
| C．L．Agee | J．C．Selman |
| V．H．Smith | H．T．Raily |
| ${ }_{\text {V．}} \mathrm{V}^{\text {P }}$ T．Carrington | R．C．Rondwin |
| J．E．Lyons | Tom S．Brite |
| Fred Grote | William Schneider |
| J．R．Hankinson | R．S．Smith |
| James H．Jones | George W．Davis |
| R．E．Bryan | W．L．Ellis |
| Thomas Craven | Tohn Whison |
| Alibert V．Huth | N．A．Ensor |
| G．A．Cammack | J．R．Johnson |
| J．C．Darwood | W．A．Clark |
| S．M．Thomas | R．B．Moorman |
| R．M．Johnson Jr． | Whll H．Davis |
| H．A．Perry | Fred A．Brock |
| J．Sidney Smith | W．Winnrecht |
| ${ }_{\text {W }}^{\text {E }}$ W．Whelps | J．W．Phelps |
| Frank C．Rachel | Miner Crawford |
| W．W．Johnson | Frank Emison |
| W．T．Clinton | George M．Johnston |
| J．F．Pangle | O．L．Wallace |
| J．M．Alexander | J．L．Magee |
| T．D．Crain | J．D．O＇Nell |
| George Champion | W．B．Walton |
| W．W．Charce | D．H．Carpenter |
| J．E．Phillips | J．W．Wood |
| W．C．Williams | S ．H．Vance |
| Steve Hoelting | Roy $F$ ．Barber |
| Normie Shernan | F．R．La Four |
| P．B．Musslewhite | D．B．Singletary |
| Hardy Kreigbaum | A．J．Brown |
| J．W．Gerard | L．R．Ham |
| Mrs．Loulsa Hickman | Will Hickman |
| L．T．Gay |  |
| T．D．Thomas | L．T．Sullivan |
| H．J．Laas | H．Rraden |
| Gus Reininger | W．H．Adams |
| Morgan Hall | Frank Palmer |
| S．E．Whlls | Warren Puett |
| D．U．Hancock | John Alexander |
| T．J．Fikes | Clarance Stockburger |
| Tessle W．Haryoy | ${ }_{\text {Jim }} \mathrm{L}$ Moore |

Countles．
寝完号
－


C



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先 Collingsworth Comal
 © Conke． Cottie

| Tax Assessor. | Tax Collector. | Treasurer. | Health Officer. |
| :---: | :---: | :---: | :---: |
| C. H. Cherbonnier | C. E. Roy | S. D. Ramseur |  |
| H. C. Floyd | John McCanless | S. F. Wylie | R. L. Owen |
| Marsh Elliston | P. L. Ellis | B. M. Bond | Dr. K. W. Field |
| F. C. Warnick | J. F. Conner | J. G. L. Mitchell | J. C. Lovelace |
| C. P. Arthur | R. W. Baird | Roscoe Davidson | Dr. J. W. Hicka |
| A. L. Millsad | T. M. B. Williams | J. F. Kerbow | W. J. Crook R Edwards |
| C. ${ }_{\text {C. }}^{\text {T. }}$ S. ${ }_{\text {Sary }}$ | H. M. Mennen | Citto Koenic Sr. | Dr. James R. Edwards |
| T. J. ${ }_{\text {T }}$ F. Harrison | ¢', B. Conner | if A. Crego | T. Dr H. Blackwell |
| G. W. Baker | J. T. Patman | Guss Johnson | Dr. H. T. Hamm |
| W. I. Rogers | 4. W. Tobin | Alonzo Lopez | Jose G. Garcia |
| Luther Davenport | ${ }_{\text {H. A. A. Colinns }}$ | B. C. Hendurick | Dr. J. L. Johnson |
| J. P. Draper | L. A. Clark | ${ }^{T}$ T. F. Hamrick | J. E. Rogers |
| George W. Huffman | George Fil Smith | Miss Brevard Templeton | Hugh S. White |
| W. G. Cook | Tom Stennith | Dee Kelley | Dr. Uel Kelth |
| W. E. Hodges | C. W. Bratton | M. O. Nix | F. H. Shaw |
| W. B. Stelnmann | ${ }_{\text {W Whe }}$ | I3. L. Bapp | Dr. A. B. Kennedy |
| H. B. Kerbow | R. H. Johnson | N. S. Bonner | Dr. R. R. Allen |
| H. C. Whlls | A. C. Goen | Mrs. Addie Thagard | Dr. V. Andrews Dr. J. M. Hill |
| W. P. Winner | J. D. Kenion | H. N. Darst |  |
| H. B. Little | D. H. Holley | B. F. Majors | Dr. Z. C. Fuquay |
| J. A. Mce ${ }_{\text {Love }}$ | Tom S. Peyton | Trvan H. Bonner | Dr. E G Cochran |
| Guy Stark | J. N. Coker | Mrs. Mattle Trimble | Dr. W. J. Reeves |
| P. McNlchols | F. T. Gloor | H. A. Robertson | E. S. Cox |
| Louls Kordey | O. B. Bran Kelly | ${ }_{\text {Albert }}$ St Maupin | Dr. J. E. Peden |
| A. R. Wysong | Ben F. Lovelace | R. S. Dunbar | Dr. W. A. Lee |
| William H L. Fromme | Victor Whlemen |  | ${ }_{\text {L }}^{\text {Dr }}$. W. A. Maness |
| J. B. Paschall | J. S. Denson | Henry Thut | C. E. Donnel |
| J. B. Raines | John W. Hollingsworth | E. A. Turner | Dr. J. F. Jones |
| Clarence Hamilton | E. O. McWhorter | M. L. Bar Floyd | Hugh Wilson |
| John P Smith | Hy J. Blumberg | William Fritz | T. W. Moore |
| J N. Jordan | John C. Hooper | John G. Hamilton | A. H. Lindsay |
| Charles Webster | J. E. King | F. A. Hudgins | Dr. J. O. Durham |
| W. L. Barkley | Joe R. Splvey | L. ${ }_{\text {W. }}^{\text {E. }}$. Caldwell |  |
| D. A. Mahoney | J. C. Flynt | R. L. Gulley | Dr. G. H. Johnson |
| Fount Simmons | Walter S. Parker | J. W. Chalfant | Dr. John Roberts |
| ${ }_{\text {A }}^{\text {A ff }} \mathrm{D}$ D. Maller | Karl Druesedow | James Charlton | Wr. H. Martin |
| A. B. Cullender | R. O. Neely | G. H. Wheeter | J. M. Wors |

County Officersm－Tax Assessor，Collector，Treasurer，Health Dficer－Continued．


Emory Menefee G．L．Addison John Closner
Mrs．Edna Miller Moe F．Kerr Ney Sheridan

W．F．Wood J．C．Whit tenburs
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 Coursey R．G．Ladd
W．Dromgoolo Choate
R．Chels告 R．I．Byrd Willamson A．B．Browning
f．A．B．Hight W．F．Holmes





 Jasper Millhollon
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Health Officer－Continued．
Health Officer．

 B．Cruse
H．J．Childress
H．Johnson
T．R．Knox
B．Brandont
S．McMullen
E．W．Fowler
C．W．LeGrande
Hac Mayhugh
H．Barnhlli


 Dr．H．H．M． Hhaads
Dr．Graham
Dr．E．M．Thomas
Dr．John V．Blake Reeves会曷 ：Treasurer．George T．Latimer
Lem Reed
D. J. Wilson
D. J. Chitwood
W. H. Chamberlain
J. A. Han
Newton Russell
 Owens
Matthews
Tittle
Tarrell Harrell
Braoks
Calahan Calahan
Cook
Hanks
Roberdeau Roberdeau
Steveson
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M．Badgitt
Mercurio Martiner
W．O．Day


| W．M．Curry |
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| W．M．Biggs |
| J．O．Cooper |
| W．R．Gamble |
| George Burriss |
| P．E．Currie |
| G．A．Guerra |
| H．W．Sayle |
| Dee Davis |
| F．O．Center |
| T．B．Adams |
| D．B．Crawford |
| W．E．Elliott |
| D．T．Harkrider |
| J．J．Allen |
| George E．Tiernan |
| J．D．Falls |
| Tom Price |
| W．S．Cunningham |
| Mrs．Eli H．Miller |
| W．L．Hutson |
| J．M．Sumrall |
| E．L．Lawrence |
| A．F．Schnaubert |
| W．A．Timberlake |
| John F．Robinson |
| A．M．Herrin |
| E．W．Klein |
| Howell Mayes |
| Sam Farquhar |
| H．C．Cantrell |
| Frank H．Bosse |
| H．Ligarde |
| John Blair |
| Lee Gunter |
| W．H．Daugherty |
| J．G．Hall |
| John T．Love |
| Halsey Davis |
| O．E．Irvin |
| W．A．Priest |
| M．A．Arnett |
| B．F．Smart |
| J．C．Keller |
| Ed Parsons |
| A．M．Cuella |
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| Tax Assessor． |
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| J．A．Merritt |
| P．H．Williams |
| Blain Wood |
| J．M．Turner |
| H．B．Matthews |
| F．M．Faulkner |
| H．Garza Jr． |
| I．B．Lucius |
| W．E．Allen |
| George J．Trainer |
| J．R．Spence |
| George W．Bell |
| W，T．St．John |
| W．J．Banner |
| R，W．Glover |
| A．B．Gober |
| Squire Boane |
| Squire Boone |
| Dr．J．E．Hth |
| W．W．Martin |
| W．H．Cabb |
| M．C．Bell |
| J．H．Johnson |
| O．P．Hector |
| John W，Almond |
| H．J．Crapt |
| Hunt Stoner |
| G．R．Olinhtnt |
| C．H．Umland |
| P．G．Lane |
| William Wendt |
| B．J．Leyendecker |
| Gus Seydler |
| J．D．Cralg |
| John Robertson |
| Albert Mason |
| John G．Kenedy Jr． |
| J．W．Armstrong |
| C．B．Stevenson |
| W．F．Stewart |
| Jesse A．Maddux |
| Lon Chreltzberg |
| W．H．Hague |
| G．D．Hinson |
| Y．Sanchez |
| G．C．Miller |

Countles．


## DISTRIOT JUDGES AND ATTORNEYS.

| unty | Dist. No. | District Judge. | District Attorney. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Anderson |  |  | W B. O'Quin |
| Angelina |  |  | T. P. Pramerris |
| Archer |  |  | H. S. Bishop |
| Atmscosa |  |  | $\mathrm{T}_{\text {Sam }}{ }^{\text {P P L Lowrey }}$ |
| Austin |  |  | George L. Ma |
| Bandera |  |  | Sen |
| Bastrod |  |  | Ne |
| Bee |  |  | C. Ward |
| Bexar |  |  | C. Linden |
|  |  |  |  |
|  |  |  | On Moses |
| $\underset{\text { Borden }}{\text { Blanco }}$ |  |  |  |
| Bosque |  |  |  |
| Brazoria |  |  | C. Davis |
| Brazos |  |  | C. Beleher |
| Briscoe |  |  | 兂 |
| Brown |  |  | J. U. Eack Lenkins |
|  |  |  | Dayton Moses |
| Cald we |  |  | Guy Mowrey |
| Carrour |  |  |  |
|  |  |  | Sanders |
|  |  |  | W. R. Exing |
|  |  |  | George L. Mayfiel |
| Chambers |  |  |  |
| Childress |  |  | D. Spencer |
| Cochran |  |  | G. E. Lockhart |
| coke |  |  | ${ }_{\text {Alex }}^{\text {Alex }}$ Coilin |
| Collin |  |  | (See Coninty Attorn |
| Colingswo |  |  | Lester Holt |
| Comal |  |  | McClellan |
| Comanche |  |  | , |
| Cooke. |  |  | F. F J. Mcleellan |
| Cottle. |  |  | Vewton |
| Crane |  |  | ollins |
| Crosby. |  |  | G. E. E. Lockhar |
| Dallam. |  |  | J. W. Sellars |
|  |  |  | (See County Attorney) |
|  |  |  | G. E. Lockhart |
| Deear Smit |  |  | J. W. Sellars |
|  |  |  | L. L. Bowman |
| Denton |  |  | (See County Attorney) |
| Seefit |  |  | İ. Newton |
| ${ }_{\text {Dimmit }}^{\text {Donley }}$ |  |  | Johr A. ans |
| Dunn, |  |  |  |
| Eastland |  |  | Morris |
| Ector Edward |  |  | ${ }_{\text {Bracks }}$ |
|  |  |  | W. W. Brigers |
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## Dintrict Judges and Attorneys-Continued.

| County - | Dist. No. | . District Judze. | District Attorney. |
| :---: | :---: | :---: | :---: |
| Fort Bend | 23 | Sam J. Stvies | W. M. Holland |
| Franklin | 5 | H. F. O'Neal | L. E. Keeney |
| Freestone | 13 | H. B. Daviss | James Kimboll |
| $\xrightarrow[\text { Frio }]{\text { Gaines }}$ | 79 |  | John A. Valls |
| Galveston | 10 | C. S. Briges | (See County Attorney) |
| Garza | 72 | R. ${ }_{\text {R. }}^{\text {R. }}$ R. Spencer | G. E. Lockhart |
| Gillespie | 33 | Clarence Martin | Dayton Moses |
| Glasscock | 70 | W. W. Beall | W. P. Leslie |
| Goliad | 24 | J. M. Green | Guy Mitchell |
| Gonzales | 25 | M. Kennon | Lester Holt |
| Gray .... | 31 | F. P. Greever | W. R. Ewing |
| Grayson . | 15 | W. M. Peck | (See County Attorney) |
| Gregr | 59 | J. M. ${ }_{\text {W. }}^{\text {C. Pearson }}$ | L. W. Strong |
| Grimes | 12 | S. W. Dean | E. A. Berry |
| Guadalupe | 65 | M. Kennon | Lester Holt |
| Hall | 46 | J. A. Nabers | H. D. Spencer |
| Hamilton | 52 | J. H. Arnold | R. J. McClellan |
| Hansford | 31 | F. P. Greever | W. R. Ewing |
| Hardeman | 46 | J. A. Nabers | H. D. Spencer |
| Hardin | 9 | L. B. Hightower | J. L. Maury |
| Harris | 11 | C. A. Ashe Whlliam Masterson | R. G. Maury |
| Elarrison | 61 |  |  |
| Hartley | 69 | D. B. Hill | J. A. H. Sellars |
| Haskel ${ }_{1}$ | 39 | J. B. Thomes | J. P. Stínson |
| Hays | 22 | Frank Roberts | Sam Lowrey |
| Hemphill | 31 | F. P. Greever | W R. Ewing |
| Henderson | 28 | ${ }^{\text {J. }}$ W. S. Prince | Earl Adams |
| Hidialgo | 68 | W. H. Hopkins | J. I. Kleiber |
| Hockley | 72 | $W$. R. Spencer | G. E. Lockhart |
| Hood | 29 | W. J. Oxford | J. J. Hiner |
| Hookins | 8 | M. S. Prerson | (See County Attorney) |
| Houston | 3 | W. S. Prince | Earl Adams Jr. |
| Howard Hunt | 32 62 | W. W. Beal <br> A. H. Dahoney | W. P. Leslie |
|  | 8 | William Pierson | L. L. Bowman |
| Hutchinson | 31 | F. P. Greever | W. R. Ewing |
| Irion | 51 | J. W. Timmins | Alex Collins |
| Jack ${ }^{\text {Jackson }}$ | 43 24 | F. O. Mckinsey | (See County Attorney) <br> Guy Mitchell |
| Jasper | 1 | A. E. Davis | W. R. Blackshear |
| Jeff Davis | 68 | W. C. Douglas | C. C. Belcher |
| Jefferson | 58 | W. H. Davidson | (See County Attorney) |
| Jim Hoge | 60 28 | John M. Conley | J. I. Kleiber |
| Jim weils | 28 | W. B. Honkins | J. I. Kleiber |
| Johnson | 18 | O. L. Lockett | (See County Attorney) |
| Jones. | 39 24 | John B Thomas | J. P. Stinson <br> Guy Mitchell |
| Kaurman | 40 | F. L. Hawkins | (See County Attornes) |
| Kendall | 38 | R. H. Burney | L. J. Brucks |
| Kent | 39 | J. B. Thomas | J. J. Stinson |
| Kerr | 38 | R. H. Burney | L. J. Brucks |
| Kimble | 33 | Clarence Martin | Dayton Moses |
| Klng | 50 | J. A. P. Dickson | I. O. Newton |
| Kinney | 63 | L. S. Kinder | George L Mayfield |
| Knox. | 58 | W. B. Hopking | J. I. Kleiber |
| Lamar | 6 | Ben H. Denton | R. T. Lipscomb |
| Lamb | 62 | A. P. Dahoney |  |
| Lampasäs | 64 | J. D. Robinson | J. L. Ward Mayfield |
| LaSalle | 49 | J. F. Mullally | John A. Valls |
| Lavaca | 25 | M. Kennon | Lester Holt |
| Lee | 21 | Ed R. Sinks | Jack Jenkins |
| Leon | 12 | S. W. Dean | E. A. Berry |
| Liberty | 9 | I. B. Hightower | J. L. Murray |
| Limestone | 13 | H. B. Daviss | James Kimbell |
| Lipscomb | 31 | F. P. Greever | W. R. Ewing |
| Live Oak. | 36 | F. G. Chambliss | T. P. Morris |
| Laving | 64 | Clarence Minder | George L. Mayfield |
| Lubbock | 72 | $\stackrel{\sim}{W}$. $\dot{R}$. Spencer | G. E. Lockhart |
| Lynn | 72 | W. R. Spencer | G. E. Lockhart |
| Madison | 12 | S. W. Dean | E. A. Berry |
| Marion | 5 | H. F. O'Neal | L. E. lieeney |
| Martin | 70 | S. J. Isaacks | W. P. Brady |
| Mason | 33 23 | Clarence Martin | Dayton Mnses |
| Maverlsk | 63 | W. C. Douglas | C. C. Belcher |

Dintict Judgen mind Attorneym-Contintued.


District Judges and Attorneys-Continued.

| County-- | Dist. No. | District Judee. | District Attorney. |
| :---: | :---: | :---: | :---: |
| Wheeter | 31 | F. P. Greever | W. R. Ewing |
| Wirrita | 30 | P. A. Martin | Edgar Scurry |
| Wibarger | 46 | J. A. Nabers | H. D. Sbencer |
| Whlliary ${ }^{\text {Wang }}$ | 28 | W. B. Hopkins | J. I. Kleiber |
| Wilson | 36 | F. A. Chambliss | ${ }_{\text {T. }} \mathrm{P}_{\mathrm{P}}^{\text {P. Mamilton }}$ |
| Winkler | 70 | S. J. Isaacks | W. P. Brady |
| Wise | 43 | F. O. McKensey | (Sce Countr Attorney) |
| Wood | ${ }^{7}$ | R. W. Slmpson | W. W. Sanders |
| Yeakum | 72 | W. R. Spencer | G. E. Lockhart |
| Young | 30 49 | P. A. Martin | Edgar Scurry |
| Zavalia | 38 | R. H. Burney | L. J. Brucks |

POIITICAL DISTRICTS,
TEXAS COUNTIES



Dallas County has two Criminal District Courts. Harris County has one Criminal Diftrict Court.

In the metropolitan district of New York, which under the term includes population outside of the city limits but to all intents and purposes a part of the city, there was in 1910 a population of 6.474,568 , in the metropolitan district of Chicago 2.446,921, of Philadelphia 1,972,34․ of Boston 1,520,470. of Pittsburg 1,042.855, of St. Louis 828,733.

## ALTITUDES OF TEXAS TOWNS AND PROMINENT ELEVATIONS

Texas, with its thousands of square miles of plains and prairies, has also many topographical features, unique and wonderful in form and in. teresting from every point of view. Altitudes vary from sea level to broad and extensive plateaus of 4,000 feet elevation. There are many broad and fertile valleys, deep and narrow gorges, ranges of hills and bluffs and many high mountain peaks. The altitudes of Texas increase from the Gulf Coast at a gradual rate until out of the coastal prairie, when the plateaus are reached. The highest plateaus are in the Panhandle section of the State.

TEEAS MOUNTAINS ARE HIGHEST IN THE SOUTH

Texas is credited in the United States geological survey with the six highest mountain peaks in the South. There are none as high east of the Mississippi River or east of the Rocky Mountain ranges proper. The ranges of mountains in Southwestern Texas are properly classed as portions of the Rocky Mountains to the north.

The highest peaks in Texas are: Guadalupe Peak, Culberson County, altitude 9,500 feet, barometer measurement; Mount El Capitan, E1 Paso County, 8,690 feet; Baldy Peak and Mount Livermore, Jeff Davis County, both 8,382 feet; Mount Emory, Brewster County, 7,835 feet. There are many other peaks ranging in altitude from 4,000 to above 6,000 feet.

Many of the mountains of Texas are more wonderful in formation and more rugged in character than any of the elevations in the East: Situated in the semi-arid region of the State, nearly all are bare of timber. They are known to contain valuable deposits of minerals, some of which are being developed, Lack of water and of transportation and, possibly, inadequate mineral laws, have delayed their full. est development.

Following is given an Altitude Dictionary of Texas in which is listed nearly 2,800 towns and: prominent elevations, their location and height above the level of: the sea. A large amount of the data presented in this dictionary was secured from the United States Dictionary of Altitudes. Some was taken from reports of geological surveys of Texas.

DICTIONAKY OF TEXAS ALTITUDES

| Locality and | Amarillo, Potter | Athens, Henderson ......... 490 |
| :---: | :---: | :---: |
|  | Ambis, Lamsi | Atlanta $\mathrm{Ca} a$ |
| Abbott, Hill $\ldots \ldots \ldots \ldots \ldots . .$. | Amelis, Jefferson .......... 29 |  |
| Abneys, Harrison ............, 304 | Anacacho, Kinner ..........1.349 | Austin. <br> Travis $\qquad$ 650 |
| Acme, Hardeman ..........1,517 | Andrews, Andrews | Avery. Red River........... 499 |
| Adams, Bexar .............. 718 | Andy, Cherokee | A ringer, Oass .............. 397 |
| Adkins, Bexar ............... 547 | Ange Uralde ................1,007 | A roca, Jones ..................1,530 |
| Adrian, Oldham ........... 25 | Angelita, 8an Patricio..... 28 | Avondale, Tarrant ........... 845 |
| Ady, Potter . $\quad$. $\ldots \ldots . . . . . .3 .140$ | Angleton, Brazoria ........ 31 | Artell. McLennan ............ 524 |
| Agra Fria dum't. Brewster. 4,660 | Angus Navarto ............ 44 | Baber, Angelina |
|  | Anne, Collin ............... 707 | Babyhead Mountain, Llano.1.52] |
| Aruja Peak, Presidio.......5,981 | Annarine, Arch | Backbone M'nt'n, Burnet. 1,300 |
| Alamo, Cass ............... 242 | Annets, Parker ............ 847 |  |
| Alamo Heights, Bexar..... 780 | Amons, Red River.......... 370 | Bailey, Fannin ............ ${ }^{705}$ |
| Alanreed, Gray .............2,993 | Anson, Jones .............1,750 | Baird, Callahan |
| Alazan, Bexar .............. 666 | Antelope, Jack ............ ${ }^{4}, 203$ | Bater, Angelina ............. 365 |
| Alba, Wood ................. ${ }^{447}$ | Antelope Hills , Shackelfd. 1,700 |  |
| Albany, Shackelford .......1,429 | Antelope Hill. Coryell......1,000 | Bald Eagle Peak, Taylor...2,250 |
| Aledo, Parker ............... 874 | Antelope Gap, Mills. | Bald Moontain, Burnet....1.239 |
| Alexander, Erath ..........1,165 | Anthony's Nose, El Paso...6,906 | Bald Knob, Williamson...1,200 |
| Algoa, Galveston ........... 37 | Anville, Wilson ........... 450 | Baldy Peak, Jeff Davis....8,382 |
| Alice, Jim Wells............ ${ }^{206}$ | A pache Peak, Culberson...5,696 | Ball Dallas ................ 450 |
| Allamore Culberson........4,619 | Applebs, Nacogdoches ..... 40 | Ballinger. Runnels ........1,637 |
| Allen, Collin $\quad$............. 652 | Aquilla, Bill ............... 52 | Bandera, Bandera .........1,258 |
| Allendale, Wichita ......... 951 | A ragorl, Presidio ...........4,900 | Bandera Mesa, Brewster...4,600 |
| Alleu Farm, Brazos........ 205 | Aransas Pass, San Patricio 5 | Banga, Brown ..............1,603 |
| Allenhurst, Matagorda...... 45 | Arcadia, Galveston.......... 33 | Banquete Nueces .......... 82 |
| Alleyton, Colorado ..... ... 188 | Archer City, Archer.........1,041 | Barber M't'n, Palo Pinto...1,050 |
| Alma, Ellis ................. ${ }^{\text {a }} 73$ | Arcola, Fort Bend.......... 69 | Rardwall, Edils ............ 477 |
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| Alping Brewster ..........4,481 | Arlingtion, Tarrant ......... 616 | Barnum, Polk .............. 22 |
| Alsdor, Elis .............. 368 | Arno, Reeves ............... 2.663 | Barreda, Cameron .......... 38 |
| Altair, Colorado ............ 207 | Aroys, Wand ................2,663 | Barry, Navarto ............. 502 |
| Alta Loma, Galveston..... 25 | Artesia Wells, La Salle.... 302 | Barstow, Ward ............2,573 |
| Alto, Cherokee ............. 433 | Arthur, Lamar ............. 590 | Bartlett, Williamson ...... 599 |
| Altuda, Brewster ...........4.638 | Ash, Henderson ............ 544 | Bassett, Bowie ............. 245 |
| Alvarado, Johnson ......... 693 | Lsherton, Dimmit ......... 402 | Bastrop. Bastrop ........... 369 |
| Alvin, Brazor | Ashwood. Matagorda ...... 61 | Bateman, Bastrop .......... 473 |
| Alvord, Wise .............. 888 | Ispermont. Stonewall .....1.773 | Batesville, Zavalla ......... 964 |
| inney | lt Mountain, Uvalde.1,300 | Baxter, Henderson........... 489 |

Altituden of Texan-Continued.

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| Birins, Casa |  |  |
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| Blact M 't'n, Joff Davis....7.500 Bulhead Mount, Edwards. .2, |  |  |
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| Burke, Angelina …….... $2^{2} 0^{2}$ Chaney Junetlon, Harris..., 68 |  |  |
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|  |  |  |

## Nititudes of Texas-Continued.



Altitudes of Texas-Continued.





GREATEST ALITHUDES, U. S. tudes are claimed, but of whi Following is a table of the highest point in each State according
to the United States Geological Survey. There are other points and peaks for which greater alti
tudes are claimed but or whit
sirit
levelings have not be made Guadalupe Peak is given
aititude of
9.500 feet by barom ter measurement Mount El Cap
tan, 8,690 feet, is recorded $\operatorname{tn} t i t$


According to a statement recently issued by the United States mountain in the South is located in Texas in the northwestern part of Culberson mountain is Guadalupe Peak Whitney, in California, is the highest peak in the United States, be-
ng 14,501 feet. ing 14,501 feet.

Seabirds frequently spend weeks at sea and are believed to quench their thirst partly from the falling
rains and partly from the fat and oil which they devour ravenously When opportunity puts them in their way. The keen eyesight of
birds is well known, and seabirds have been observed flocking toward the storm cloud, about to burst, from all points of the comthe water as it descends from the skies.

Montreal has the largest flour
mill in the British Empire. It mill in the British Empire. It
turns out 5,000 barrels of flour a

It is a curious fact that the
countries of the tallest and the countries of the tallest and the shortest people of Furope- the
Norwegian and the Lapps-adjoin each other.

Milliner is a corruption of "Mi laner, from gave the fashion to a rope in all matters of taste in woman's headgear.
Wall paper can now be hung by machinery. The device consists of placed, and a paste reservoir with a feeder.

The Russian Government gives a golden medal to every couple that wedding. Last year 614 couples received medals.
The clearness of the air at Horn Sound, Spitzbergen, is such that it the horizon at a distance of eighty miles.
In Dahomey, according to an of ficial report recently issued, the
currency consists of cowry shells of which a sack of 20,000 is considered the equivalent of \$1.44.

For every ton of genuine ivory brought into Great Britain there are imported ivory. The latter comes chiefly from the Republic of Colombia, in South America. It is obtained from
In olden times when a knight entered a company of ladies he that he considered himself among riends and that there was no need to protect himself. This practice has survived in the custom of rais-
Girls in Papau, or New Guinca an island in the -acific, have little force them to sleep on the topmost branches of a tall tree; then the ber of the parents is not disturbed with fears of an elopement.
Army surgeons state that the killed in battle indicate the causes of death. Those who have per ished from sword wounds have a
look of repose, while there is expression of pain on the countenance of those slain by bullets.

TEXAS POSTOFFICE GUIDE,
WITH LATE SUPPLEMENT
All stations issue and cash money orders, register letters and parcel and sell postal supplies. Lettered and

Money orders must be drawn only on the main office or branch officem not on stations, but may be cashed at either the main office, branc ffice or any station of such office.
Independent stations, indicated thus (Ind.), receive and dispatch regis. tered mall in the same manner as postoffices, and are the only station o which postmasters address registered package tickets.
County seats (ch) and the number of rural routes emanating from cer. tain offices are shown in the list of postoffices arranged by States an counties.

|  |  | Office. <br> Countr. |
| :---: | :---: | :---: |
| brot |  |  |
| Abernathy* | Anchoraze* ${ }^{\text {a }}$ A......Atascosa |  |
| bilenet ........... Taylor | Ander* $\because . . . . . . . .$. Goliad |  |
| bles . . . . . . . . . . Frl Paso | Andersont ..........Grimes | Bald |
|  |  |  |
|  | Angelita * …....s.in Patricio | Balmorhea * ...........Reveq |
| Adiar .il. . . . . . . Fleher | Angletont .........irazoria |  |
| Aldarsville* ...... Lampasas |  |  |
| Addison .............. Dall | Annona $\ldots . . . . . . . .$. Red River |  |
|  | Ansont ${ }^{\text {Antan }}$, $\ldots \ldots \ldots \ldots$ Jones |  |
| Admiral Wails.....iutchinson | Antelope ${ }^{\text {Antelope }}$ Gap ${ }^{*} \ldots \ldots \ldots .$. Mills | Bark |
| Adrian* ........... Oldham | Appleby ${ }^{\text {a }}$ - ${ }^{\text {a }}$. ${ }^{\text {acogdoches }}$ |  |
| Afton Duice $\ddagger$.......... ${ }^{\text {Nuec }}$ |  |  |
| Aruilares* | Arah* $^{*}$ |  |
| ARJIa Nueva* ${ }^{\text {a }}$, | Aransas Pasit..San Patricio |  |
| mo Beach mo....Ca Cann | Arbadia ……...Galveston |  |
| Alanreed* ..............gray | Archer Cit $\dagger$ ¢ .......archer |  |
|  |  |  |
| 1 bert* ............ Gillesple | Argenta ……..... Live $\mathbf{0 a k}$ | Batson |
| 1bion $\ldots \ldots . .$. Red River |  | Bay Cltyt........ Matagorda |
| ridge ${ }^{\text {a }}$..............Jasp | Arlingtoint ${ }^{\text {a }}$........ T |  |
| Aledo* ${ }^{\text {a }}$-......... Parker | Arneckeville: . ......DeW | Bayview* ....... Galve |
|  |  |  |
| Alfrede .......... Jim wells | Artesia* . $71 .$. ..... Lasalle | Beatriz . . . . . . . . . Hidaligo |
|  |  | m |
| Alicet . . . . . . . . . . Jim wells | Ashby* . . . . . . . Matazorda |  |
|  | Ashortont .......... ${ }^{\text {ammmit }}$ | so. |
| Allen ${ }^{\text {a }}$. . . . . . . . . . . . ${ }^{\text {a }}$ Collin |  | Bebe* . ... . . . . . Gunzales |
| Allenfarm* | Aspermontt ......stonewall | (Beckham. R. Sta. Sulphur |
| Almat ................. ${ }^{\text {andis }}$ | Athenst . .........'rienderson | Beckville ${ }^{\text {* }}$ |
| Almeda* ................iarris | Atlantat ............. Cass | Bedias ${ }^{\text {a }}$ |
| Alpha $\ldots \ldots .$. . ${ }^{\text {Anutchins }}$ | Att |  |
| sdo | Atwell ${ }^{\text {a }}$............Calla |  |
| Altair* ........... Colorado | Aubrey* ……..... D |  |
|  | Ausus | Belcherville* ...... Montagus |
| Alto $\dagger$. . . . . . . . . . . Cherokee |  | Belgra |
|  | Capitol. | Bellaire |
| tonia*......San Augustine |  |  |
| Alvaradot $\ldots$...........J.Johnson |  | Bell |
| $\text { vit } \cdot . . . . . . . . . . . . . \text { Bre }$ |  |  |
| vordt narlliot $\ldots$........... |  |  |
|  |  | Benavides* |
|  |  |  |
|  |  | Be |
| nes**............. ${ }^{\text {c }}$ | Avondale* .......... Tarran |  |
| Amphion ${ }^{\text {a }}$.........A ${ }^{\text {a }}$ | nt |  |
| ch | Baber**...........Angelina | $1{ }^{\text {t }}$ |
|  |  |  |

Treanm pontopfice Gump-continued.


- Texas Poxtoffice Ginide-Continued.
- 





Texas Postorfice Guide-Continued.


## Domestic Moucy orilers-Cont.

 60.01 to 75.00.75.01 to 100.00.

25 c
30 c
Rural delivery carriers are authorized to accept and receipt for closed in unsealed letters committed to the
One hundred dollars is the largest amount for which a money order can be written, but there is
no longer any limit to the number of orders that may be drawn at the same time upon any office above the fourth class. Upon offices of the fourth class the
should not exceed $\$ 300$.
Foreign Postal Money Order Rates. are as follows: $\$ 10$. 10 cents; $\$ 10$ are as follows: $\$ 10.10$ cents; $\$ 10$
to $\$ 20,20$ cents; $\$ 20$ to $\$ 30,30$
cents; $\$ 30$ to $\$ 40.40$ cents; $\$ 40$ to $\$ 50,50$ cents; $\$ 50$ to $\$ 60,60$ cents.
$\$ 60$ to $\$ 70,70$ cents; $\$ 70$ to $\$ 80,80$ cents; $\$ 80$ to $\$ 90$, 90 cents; $\$ 90$ to
$\$ 100, \$ 1$. The rates to Cuba are the $\$ 100, \$ 1$. The rates to Cu
same as domestic rates.

Canada and Mexico.
All articles admissible to the dressed to Canada or Mexico, will be transmitted at same rates, and
under same conditions as domestic under same conditions as domestic plants, etc, for Canada must be prepaid at ic per ounce, and that sealed packages, other than letters in their ordinary form, that can mine whether dutiable or not, will not be admitted though prepaid at
the full letter rate.

The Registry System
Any article of mailable matter may be registered at any postfee of 10 c in addition to the regular postage of its class, all of which must be prepaid in full with whose name and address must be printed or written upon the envelope or wrapper before it
received for registration.

Foreign Postage Rates. Articles for and from foreign Cuba and the Republic of Panama) are classified as letters or postcards, printed matter, commercial dise.
For letters, 5 c for first ounce and 3c for each additional ounce cards, 2 c for each single and 4 c for double cards; for printed matter, 1c for each two ounces or
fraction thereaf; for commercial paper, $5 e$ for first ten ounces or paper, se for first ten ounces or ounces or fraction thereof; for
samples, $2 c$ for pach four ounces
or less and 10 for each addition two ounces or fraction thereol
Registration fee in addition postage, ${ }^{10 \mathrm{c}}$
Letters for England, Ireland for ounce, and letters for German dispatched only by steamers whid
land the mails at German ports. per ounce.
PARCEL POST RULES A general parcel post in th
United States is provided for
Sec. 8 of the act of Aug. 24 , 191 Sec. ${ }^{8}$ of the act of Aug. 24, 191
By this act fourth-class mak matter, including farm and factor products, not row embraced by laf class, not exceeding eleven pound in welght nor greater in size thay seventy-two inches in length am kind likely to injure the person any postal employe or damage th mall equipment or other mail mat able within a period reasonably re livery.

Weight Limit Raised.
eral. the weight limft has beef raised from eleven to twent pounds for transportation in the postage on parcels exceeding fot ounces to be 5 c for the first pou and 1 c for each additional twi intended for local delivery, and for the first pound and $1 c$ for ead additional pound or fraction there of when inter within the first second zones.
The weight limits and measure ments remain the same as prev Parcel Post Zones.
Every postoffice, to all intent and purposes, is the center of eige cluding all territory within a dius of fifty miles; the second, radius of 150 miles; the third, $3 f$
miles; the fourth, 600 miles; tiz miles; the fourth, 600 miles; the
fifth, 1,000 miles; the sixth, 1,46 miles; the seventh, 1,800 miles, and the eighth, all the area outside $t$ eventh zone
$\qquad$
There are twenty-nine posto
ices owned by the Federal Go rnment. They are located in t following cities: Abilene, Anstt Dallas, Denison, Eagle Pass, Paso, Fort Worth, Gainesvill Galveston, Gonzales, Greenvil Kinney, Palestine. Paris, San gelo. San Antonio, San Marca Sherman, Temple. Tvler, Victor
Waco and Wichita Falls.


Other Zones.

## Weight. Founds



Parcel post stamps have been may be used in mailing packages or other fourth-class matter. Parcels weighing more than four ounces must be mailed at a post-
office, branch postoffice, named or lettered station, or such numbered stations as may be designated by the postmaster, or delivered to a thorized ot oreceive such matter. Parcels weighing four ounces or less may be mailed in the same Special Delivery.
A mailable parcel will be accorded special delivery service when a special delivery stamp or 10 c extra ordinary stamps are used the words "Special Delivery" must be placed on the wrapper.
A mailable parcel on which the postage is fully prepaid may be insured agalnst loss in an amount equivalent to its actual value, but a fee of 5 c , and in an amount equivalent to its actual value in excess of $\$ 25$, but not to exceed
$\$ 50$, on payment of a fee of 10 c in
stamps, such stamps to be affixed The amount of the insurance fee shall be placed on the receipt given the sender and on the coupon
retained at the mailing office.

## Collect on Delivery.

The sender of a mailable parcel on which the postage is fully pre article and the charges thereon payment of a fee of addressee on post stamps affixed, provided the amount to be collected does not exceed $\$ 100$. Such a parcel will additional charge, in an amoun equivalent to its actual value, but not to exceed $\$ 50$
for mailing parcel will be accepted for mailing only at a money order money order office. Money order offices are designated in the parcel
post guide by an asterisk (*) or a post guide
dagger ( $)$. The asterisk (*) or a the mailing office will be responsible for the postage required for the a return of a parcel add
The 3c postage stamp was first postage on letters. previously 5 c fostage on letters, previously 5c under 300 miles and 10 c beyond that, was reduced to 3 c for dis-
tances not exceeding 3,000 miles the rate for over that distance remaining 10c. At that time, however, prepayment was not required
and there was no general use of and there was no general use of
stamps until 1855, when prepayment became compulsory. In 1863 the element of distance was abolmade for any place in the United States. In 188? the rate was reduced to 2 c .

YEAR'S COINAGE $\$ 3,000,000$. The total coinage for the fiscal ing to the statement of the direcble eagles 462,091 , value $\$ 9,241.820$. eagles 809,050 , value $\$ 8,090.500$; half eagles 2,140,099, value $\$ 10$, 700,495; quarter eagles 810,165 , The total go
$4,221,400$ pieces, value $\$ 30,058,227$ Or silver half dollars there were coined $3,982,235$, quarter dollars
$4,141,235$ and dimes $4,210.235$, making a total silver colnage of $12,-$ 336.705 pleces, amounting in value
to $\$ 3.448 .199 .75$. - Washington Corto \$3.448.199.75.-Washington Corclal.
A physlologist has discovered that nearly all criminals have large ears.
Most of the shoes worn in Japan
are made of straw or wood.

## POPULATION STATISTICS,

## FEDERAL CENSUS, 1910

The thirteenth decennial census advanced Texas ro fifth position among the States of the Union in point of population, and to first place in the percentage of growth among States in the $3,000,000$ population class. This section of the Texas Almanac contains the official figuret on population for Texas and political divisions and population statistic for the United States, the cities of the United States of and over cities of the world, and other statistical data of interest and
value to those desiring information relating to the growth of the Stat and Nation.

## SHARP INCREASE IN

 The population of Texas, as recensus, is $3,896,542$, which shows an increase of 847,832 persons, or 27.8per cent, over the census of 1900 . per cent, over the census of 1900 . vanced to fifth place, displacing
Missouri. The first census of TexMissourl. The first census of Texas was in 1850 , when the popula-
tion was 212,592 .
An interesting feature of the population statistics which follow is the classification of races. In
1910 the population was subdivided as to color as follows: White $3,204,896$, negro 690,020 , all other persons 1,666 The equivalent figures for 1900 were: White $2,426,-$
669 , negro 620,722, all other 1,319 . The negro population constituted 17.7 per cent of the total population in 1910 as against 20.4 per cent
in 1900 and 21.8 per cent in 1890 . The increase in negro population. during the decade was 11.2 per cent and the white population 32.1 . counties the white population is given first, the negro population second and the total population, including all others, last.

$$
\begin{aligned}
& \text { Texas Population, 1850-1910. } \\
& \text { Following are the population } \\
& \text { statistics for Texas from } 1850 \text { to } \\
& \text { 1910, inclusive: }
\end{aligned}
$$



TEXAS FAMILIES.
In 1910 there were 798,426 famiteenth dexas, according to the thirthere were $\overline{5} 89,291$ families. The increase in number of families during the decade was 35.5 per cent, from 5.1 to 4.9 persons each.


Note-First figures show white popult
tion; second, colored; third, thtal popule
tion. AAl other population, Indlans, A An
atics. etc., included in totals.

|  | $\begin{array}{\|c\|} \text { White. } \\ \text { Colored. } \\ \text { Total. } \\ \hline \end{array}$ | $\begin{gathered} 1900 \\ \text { White. } \\ \text { Colored. } \end{gathered}$ Total. | Pct. Inc. 1900 1910. |
| :---: | :---: | :---: | :---: |
| Anderson | ${ }_{11}^{18,327 \mid}$ | ${ }^{16,309}$ |  |
|  | 29,650 | 28,015 | 1 |
| Andrews |  |  |  |

Population Teasas Counties-Cont. Population Texas Counties-Cont. ,

Angelina
Aransas
Archer
$\qquad$
$\qquad$
Austi
Ba

## Ba Ba

Bastr

## Bay

Bee

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\mathrm{Bel}
$$

$$
\mathrm{Bl}
$$

Blanc
Borden
$\qquad$ $\frac{\vdots}{\omega}$




|  | $\begin{gathered} 1 \\ \mathrm{Cl} \\ \mathrm{CO} \\ \mathrm{~T} \end{gathered}$ |
| :---: | :---: |


| $1900-$ |  |
| :---: | :---: |
| 1910. |  |
| 8 |  |
| 8 | 3.0 |

## 19 Wh Cot To

| $\|$1900 <br> Whit <br> Color <br> Fota |
| :---: |
| 10 |

象
1.7
$2.1 \quad \mathrm{~T}$

| 10.005 | 3.0 | , |
| :---: | :---: | :---: |
| 18,845 |  | Cottle |
| 2,275 |  |  |
| 2.356 | 121.5 | Crane |
| 1,253 |  |  |
| 1.23 | 72.4 | Clockett |
| 15, ${ }_{206}$ |  |  |
| 16.019 | 43.1 | Crosby |
| ${ }_{10.044}$ |  | (a)Culberson |
| 18,367 | 1.7 | Lallam .... |
| 10, 264 |  |  |
| 10.528 | 2.1 | Dallas |
| 16,075 |  |  |
| 21,765 | 11.4 | Dawson |
| 2, 271 |  |  |
| 2.3955 | 51.3 | DeWist |
| ${ }^{8} 25$ |  |  |

$$
\begin{aligned}
& \text { Chil } \\
& \text { Clay }
\end{aligned}
$$

Cochran ..... ...

$$
\text { Ccke } . . . . . . .
$$

Coleman ......
Collingsworth
Colorato .
Comal .

Cimanche .
Concho
Cooke ........



| City, Town or Villiage and County- |
| :---: |
|  |
|  |  |
|  |
| Jefferson-Marion |
|  |  |
|  |
|  |
| Kenedy-Karnes |
|  |  |
|  |
|  |
| Kosse |
| Kyle-Hays |
| La Grange |
| 1.1 Torte-Ha |
| donsa-Fann |
| Lampasas Lampasas |
| Lincaster-Dallas |
|  |
| Leonard - |
| Lindaje-Smith |
|  |  |
|  |
|  |
| Locknes-Floyd |
| Lene Oak-Hul |
| Lorgriew-Gregg |
|  |  |
|  |
| Lubbock-l.ubbock |
| Lufkin-Angelina |
| ling-Caldwell |
|  |  |
|  |
|  |
| M CLean Gras |
| Mansfield-Taran |
| Marble Falls-B |
| Marlin-Falls |
| Marshall-Harrison |
| Mart-McLemnan |
| Memphis-Hall |
|  |
| Meridian-Bos |
|  |  |
|  |
| Midland-Midland |
|  |  |
|  |
| Miles-Runnels Milford-Enlis |
|  |  |
|  |
| Mineral Wells-Palo |
| Montague Mont |
| Moody-McLenra |
| Morgan-Bosque ${ }_{\text {M }}$ Mount Pleasant-Titus |
|  |  |
|  |
|  |
| Navasota-Grim |
| Nepada-Collin |
| New Rraunfels-Comal.... |
|  |  |
|  |
| Oiney-Young |
| Orange-Orange |
|  |  |
|  |
| estin |
|  |  |
|  |
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|  |  |
|  |
| $\begin{aligned} & \text { Pecos-Reeves } \\ & \text { Peniel-Hunt } \end{aligned}$ |
| $\underset{\text { Prilot Potia-Clay }}{\text { Point-Dentono................. }}$ |
|  |  |
|  |
| ${ }_{\text {1 lano-Collin }}$ |
| t Arthur-Jeffersin.......... |
|  |  |
|  |
|  |
| Queen City-Cass |
| man-Humt .. |

http://fraser.stlouisfed.org
POPULATION LEADING CITIES.
Custio
 Richmon-F Fannin Bern
Bising Star-Eastlay Rock dale-Milam Rochport-Aransas
Rock wal-Rock wall
 Rosebuld-Falls
Rosenbergatort Ben
Rotan-Fishier
Sabir
St.
San
San
San
San
San

$$
\begin{aligned}
& \text { A State } \\
& 146 \text { dishes. }
\end{aligned}
$$

| 1,356 | 1,27 |
| :--- | :--- |
| 1,480 | 1,31 |
| 2,875 | 1,56 |


ont.

## 

| Census by States-Cont. |  |  |  |
| :---: | :---: | :---: | :---: |
| State- | 1910. | 1900. | $\left\lvert\, \begin{gathered} \text { Gain } \\ \mathrm{Pct.} \end{gathered}\right.$ |
| Oklahoma | 1,6言, 1 | 790,391 | $\stackrel{109.6}{6}$ |
| Oregon ${ }_{\text {Pennslva }}$ | (609-769 | 6, ${ }^{413,115}$ |  |
| Rhode Istant | \%12.674 | 428,556 |  |
| South Carolin | 1.54, 400 | 1,340,316 |  |
| Tennessee | 2.184 .159 | 2.0406 |  |
| Texas | 3.8966.542 | 3,0.9.70 | 34.9 |
| Vermo |  | $3+3.641$ |  |
| Virginia | ${ }^{2}$, $0411,61 \%$ | 1,854.184 | ${ }^{11} 1$ |
| Washington | 1, $1+1,1,19$ | 9158.800 |  |
| West Virgin |  | 2,066! 042 |  |
| Wyoning | 1451965 | 923. |  |
| Dist. Columbia | 831,069] |  |  |
| *Decrease |  |  |  |
| RLD'S | ARGES | CITIES. |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| St. Petersburg.....................1,600,000 |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Buenos Aires. |  |  |  |
| Constantinople (Est...............1,066.987Calcutta |  |  |  |
| Shanghai (Est.)................... 9000000 |  |  |  |
|  |  |  |  |
| Rio de Janeiro................... |  |  |  |
| Bombay |  |  | 66.009 |
| Warsaw , |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Manchester | and |  | 606, 71 |
|  |  |  |  |
| Clevela |  |  | 560.663 |
| Cleveland ${ }_{\text {Amsterdam }}$....................... |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Birmingha |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Sydney <br> Copenhagen |  |  |  |
| Breslau ....................... ${ }^{470}$ |  |  |  |
| me ............................. 462, , |  |  |  |

8BO TO THE SQUARE MILE. The statistical abstract for 1900 able figures respecting the popu lations of Europe.
Apart from the small areas of the Hanse towns, whose the densest population recorded is that of Saxony, which has 830 persons to the square mile. Similar figures for other countries
are: Belgium 652 , The Netherlands $F^{665} 5^{5}$ United Kingdom 372, Japan

335, Italy 313, Germany 311, Aus
tria 246 , Switzerland 235 , Franc
tria 246, Switzerland 235, Franc 19, Egypt proper 939. NEIGHBoRs ARE FAR APART,
There are twenty-two counties is
Texas which, according to the last
census, had less than one person
per square mile. They are as foll NEIGHBORS ARE FAR APART,
There are twenty-two counties in
Texas which, accorting to the last
census, had less than one persor
per square mile. They are as folf according to the census of 1910 .)


Pop.

| per square mile. They are as fold |  | 10,763 (amden, N. .J............. 69,07t cmiton ill | 94,338 10453 | Eventt, Wasl <br> Fall River Ma | $\begin{gathered} 34.84 \\ \hline 19245 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| lows: <br> Population |  | 23,383 Canton, ohio.............. |  |  | $\begin{array}{r} 119,295 \\ 14.331 \end{array}$ |
| County- persq.mil. | Abiel ${ }^{\text {a }}$ | ${ }_{11}^{100.030}$ | 17, ${ }^{16} 9$ | Finclay, Ohio........... |  |
| Andrews | Albugue | 11: 213 |  |  |  |
| Bailey | Alexinit | 15,329 (cedir R i, | 32. | Fond du | 18.797 |
| Br |  | 51,913' Central Falls, E | 32, 7 , | Fort Dodge, Inwa | 15.543 |
| Cochran | Aliance. |  |  | Fort Scott, K.re........ |  |
| Crane ........................ 0. | Alpina | 12.096 Champaign, | 12, 821 | Fort Smith. | ${ }^{23,975}$ |
| Crockett ..................... 0 . | Alton, |  | 22,99\% | Fort Worth Tex |  |
| Gaines ....................... 0. | Altooma may......... | 31.265 chanlotte, N. | 34, 141 | Frameft. Ky* |  |
| Hartley | Amaconds, Mont | 10.134 Chatamiona, | 11.601 | Frederick. |  |
| Hockley | Andersor, Ind. | 12. 1818 Che Chester. | 335.537 | ${ }_{\text {Fresport, }}$ cal |  |
| Jeff Dav | Amm Arbor. ${ }^{\text {M }}$ | 12.jot Closenvic |  | Fulten, $\mathrm{N}, \mathrm{Y}$ |  |
| King | Amiston, | 15.152, chicago. 111 |  | Gadsden, |  |
| Lamb | Ansonia, | 16.773 Clicaso H (igh | 11.527 | Galesburg, | ${ }_{22,009}^{10,509}$ |
| Loving | Applev | 11.138 Chickasha, Ok | 10.320 | Galvestom. Tex |  |
| McMullen | Asbury Park, | 10,150 Chicopee Mas | 20.401 | Gardner. Mas | 13,910 |
| Moore | Ash ${ }^{\text {a }}$ (ille, |  | 14.502 | Garficld, ${ }_{\text {Gry }}$ N. | 10.213 |
| Oldham | Asthand, | 18,260 Cincinmati, Ohio......... | 363.991 | Geneva N. Y | ${ }^{12,446}$ |
| Pecos | htabut, | 16.429 Cliburne, Te | 10364 | Glens Falls, N. |  |
| Reagan | thens, ${ }^{\text {chise }}$ | 14.913 CIevcland. | 360. 663 | Globe Ariz. |  |
| Terrell | lanta, | 151.839 Climin, Loma | ${ }^{25.577}$ | Glourcester, Mass | 24.393 |
| Unton | antic | 46,150 |  |  |  |
| Winkler | bor |  |  |  |  |
| Yoakum | burn, Mc. | 15.04 cafteysile | \% | Grand ${ }^{\text {Grand }}$ |  |
| Only thr | nuburn, | 41,040 Colorado Syrings, Colo. | 29,07s | Great Falls. | 13.948 |
| had a population in 1910 in ex | ugusta, | 13.211 Columbi |  | Greerbay. | 25.236 |
| of the average European popula | urea, Ill. | 29.80 Columba, |  |  |  |
| tion | (ustin, Te | ${ }_{12,727}^{29}$ Columbus, Ohio ${ }^{\text {a }}$.......... |  | Greensblrg. Pi |  |
| are | Briersf | 55,485 Con | 21,497 | Guthrie, Ok, |  |
| Dallas ...................... 158 | altimo | 21.832 Conr cllsvili |  | Hackensack, |  |
| Tarrant | arre. rangor (t................. | 10,734 Corning. N. ${ }^{\text {P }}$ | 13,730 | Hagerstown, |  |
| Galves | ataria N. Y | 11,613 Cortlind, N. Y |  | Hamilton. O |  |
|  | nton Rouge | 14.897 Council Bluff | 29.292 | Hammond, Ind | ${ }^{20.925}$ |
| LATIN-AMELICAN CENSU | satue C | 25,260 Corington, K |  | Hannio | 18,341 64.186 |
| Frederick W. Goding, Unite | nay ane. N . | 5.50 .54 Cumberland, Md......... |  | Harison, N . |  |
| States Consul at Montevideo, ha | eanmont, Tex. | 20.640 Dallos, Tex |  | Hartford, Co |  |
| compiled statistics of the popula | ${ }^{\text {er }}$ Fillls $P$ | 12,191) Danbuy ${ }^{\text {a }}$ |  | Hatioshurg |  |
| tion of the Latin-American co | ellaire, Ohio........... | 12. 126 Danalile | ${ }_{19}^{21.000}$ | ${ }_{\text {Hazleton }}^{\text {Haver }}$ |  |
| tries. The result of his work | elliningic, Wa:h...... | 24.2981 Iavenport. Io |  | Helena, Mon | 12,515 |
| follows: | eloit. Wis. ............. | 15.125: Diston, Ohio | 116.577 | Hend |  |
| Country- Population. ${ }_{\text {Mrea }}^{\text {Miles }}$ | erkeley, Ca | 40.134 Dec | 31.14 .4 | Hobokcra, N |  |
| Brazil ${ }^{\text {country-..........19,910.616 }}$ 3,218.1 | eessemer, Ala | 10864 Denyer, Colo. |  | Ho |  |
| Mexico ...............13.607.259 167.0 | ethlehtm. | 12,337 Des Moines. | 36,36 | Hoinestead. |  |
|  | eresly, ma | 18.650 Detroit, Mich | 465,766 | Hornell, N . |  |
| Peru . . . . . . . . . . . . $4.5000,000$ 679.6. | iddeford. | 17,999 Dover, |  |  | 14.434 |
| Colombia ........... 4 ,0000,000 438,4 | nes. | 13,031 Dubcis, |  |  |  |
|  | bamton, | 48.443 Dubrque |  |  |  |
|  | irmincham. | 139.685 Dututh Min | 78.466 | Huntington, Ind. | 10.272 |
|  |  | 10,000 Dunkirk, ${ }^{\text {a }}$ Y |  | Huntington, W. Va |  |
|  | ismarck | 5.443 Dummore, Pa | 17.615 | Hutchinson, Kan. | 16,364 |
|  | loomfit ld, | ${ }^{15} 3.70$ Duquesre, P | 15,727 | Hydc Park, | 14.507 |
| Scuador Ecuador $\ldots$......... | $\xrightarrow{\text { lommington, }}$ luefiel |  | 18,088 | Indiznap | 230,480 |
| Uruguay ….......... 1,111,758 | oize. Idaho | $1 \% .358$ East Liverpat, OL | 20,387 | lowa City. | 10,091 |
| Honduras | oore. Io | 10,347 Easton, Pa | 28, 223 | Ironton, 0 | 13.147 |
|  |  | 6790357 East Orange | $3: 371$ | Irarrood, |  |
| Panama ............ 360.50 |  | ${ }_{14}^{19.35 t}$ East Prowdence, R | 55947 | Isvington, ${ }^{\text {In }}$ |  |
| Costa Rica........... 351.17¢ | Hids | 10, en Ean Claire, Wis........ | 18.310 | Ithaca, N. Y. |  |
| Totals ............67.796.072 8,769, | ridgetan, | 14,200\| Elyin 56 Inl | $\frac{23}{2.96}$ | Jackson, Mich | - 31,433 |
|  |  | 27.7\% Elkhart. Ind |  |  | 15: 779 |
| at fire has been burn |  | 10517 Elmira, N. | 57.176 | jactsomille, F | 57.,699 |
| ntinuously for 200 years in | murswick. | 10.182 El Praso, | 3n, 399 | Iacksonville | 15.3.0 |
| house of William Goodfellow |  |  |  | Jamestown |  |
| ly fell on the border of | uragton. |  |  | Heff rson City. Mo |  |
| rland and Northumberland. | ptler, Pa | 26.722 Frie. Pa | 66.53 | Jeffersonville. Ind | 10.412 |
| d. The same family has | atte, Mont | 33,165 Excinaba. Mich |  | Jorsey City. N. J | 268.779 |

为
tricts. Compared with the census of 1900 it shows a marked tendency for city life. The compara-
tive percentages are 40.5 and 59.5 , respectively.
Texans living in cities of 2,500 or more number 938,104 as com-
pared with
$2,958,438$ living in small pared with ${ }^{2,958}$ ows and rural districts. The percentage in 1910 was 24.1 and 75.9, respectively, as compared with 17.1 and 82.9
84.4
in 1890.

## Center of population.

The center of population in the United States is in the western part of the city of Bloomington,
Monroe County, Indiana. Increased population on the l'acific Coast moved the conter of population
thirty-nine miles westward from thirty-nine miles
its location in 1900.
Urban places having over 85,000 inhabitants increased in ponulation during the last decade more than rapidy as the state as a whole, and the group of places having from 2,500 to 25,000 inhabitants
more than twice as rapidly. The rate of increase for rural territory was only about two-thirds that for the State as a whole.
Thexas was admitted as a State census reports for the first time in 1850. Since that time Texas has grown rapidy. its populatson near-$1850-1860$, more than doubling dur-
ing the twenty years, $1860-1880$, ing the twenty years, $1860-1880$, twenty years from

In 1910 the combined population of the cities of 25,000 inhabitants or more constituted 12.1 per cent
of the total population of the of the the corresponding percentage in 1900 and 1890 was 6.7 and
5.9 respectively. The urban places having less than 25,000 inhabitants at the censuses of 1910.1900 and
1890 contributed $11.9,10.4$ and 9.7 per cent respectively, of the total population of the State.
Federal census reports issued Jan. 1,1910 , show that at that time
there were $4,0 \overline{2} 5$ insane nersons there were in ${ }^{453}$ insane persons compared with 3,345 in 1904 . Durcommitted to these institutions, while $\mathbf{1 , 1 8 3}$ were disclarged. transferred or died. To every 100,000 insane persons in asylums while the aiverage icr the United States is 204.
The Lord Chiff Justice is, by
virtue of his office, the principal Coroner of England.

TITLE OF THE PRESIDEVT,
The address of the President
simply United States." In the First $C_{0}^{\text {t }}$ gress there was debate over a tid
and it was proposed by some men bers that he be addressed as " Higliness," but a committee ported that it is not proper that expressed in the Constha tion." In the constitutional co
vention the first report fixed term of office at seven years witi out eligibility to re-election:
debate various periods from ing good behavior" to twe years were favored. The limit four years was finally adopted
grand committee and ratified the convention.

HIG FIRE LOSSES.


ENGLISH ORTHOGRAPHY. William H. Maxwell, superi tendent of the New York cityp it schoois, glexity of English thography: "The sound of 10 is represented in thirteen differ
ways: So, boat, roe, oh, door, ways: So, boat, roe, oh, doon, hautboy, beau." He urges coll and universities to unite in crming our spelling. But this end this suggestion has b made: Get the newspapers magazines to agree to adopt a s, pler spelling or, say, twenty-t more on Jan. 1, 1914, and so the pledge not to be binding unl a majority is secured.

## CONTINUED ADVANCEMENT ALONG

## EDUCATIONAL LINES IN TEXAS

There is an increasing interest in educational matters in Texas, With a well-organized school system as a foundation and a magnificent en dowment for educational purposes, there is reason to believe that Texas will make such advancement that in the near future it will stand in the foremost rank among States in the efficiency of its school system and in the power of its higher institutions of learning. The rapid developmen of the resources of Texas demands progressiveness in educational lines To secure desired results it is necessary to support the schools by provid ration and liberal appropriations.

- WELI,ORGANIZED SHESCHOOLS

The educational system of Texas, founded upon the common and independent district schools, is ated at Austin and Galveston, and by the Agricultural and Mechanition. Classed with these two schools as higher institutions of learning under the control of the the training of white teachers, one normal and industrial school for colored youths, and the College of
Industrial Arts for young ladies. In addition to the institutions named there is a system of high schools in the cities and towns of are affiliated with the university, healy 600 independent district schools, many of which have agriIn less populated districts. The effort to improve and broad-
en the work of the common and in the work of the common and
ndependent schools of the state s meeting with success. The interest manifested is in evidence in
better school buildings, better eachers, a larger and more reguiency.

THE UNIVERSITY OF TEXAS The First Congress of the Re ublic of Texas, in 1839, set aside hree leagues of land for each fter to be organized, for primary chools and academies, and fifty eagues of land for "two colleges universities. While Congress
ovided for two schools, it being hought at that time that it might te udvisable to establish sepa ate universities for males and allized around the idea of orysntral co-educational institution. In The State Interested. In 1858 the State Legislature ting the plans of the First exeess of the Republic and estab sh a university, but political dis-

Wurbances followed by the Civil tion was not again taken up until 1871. The new Constitution adoptrected the establishment of a university, and pursuant to this demand the Legislature refunded a prior endowment of $\$ 100,000$ in to an endowment of $1,000,000$ acres of West Texas lands.
In 1881 sufficient funds were on hand and the main university was
established at Austin, and in 1883 it was open for the enrollment of students, 221 entering. In 1891 the medical department at Galve
ton received its first students Since the opening of the university its growth has been rapid and substantial and the enrolleach year. The work of the university is being broadened and its influence in the development of a higher citigenship is constantly growing more effective.

## University Departments.

## At Austin:

Department of Education. Department of Engineering Department of
Department of Mtdicine. New schools have recently heen
organized. In the College of Arts: Domestic economy, business training, journalism and semitics edu neering, architectural engineering In the Medical Department a Galveston there is a school of pharmacy and a school of nurs as "A Plus" by the American Medical Association.

ANNUAI ENROLIMENT. The enrollment cf the university
or the years of its existence fol low

| 1883-84 | 221 | 1898-99 |  |
| :---: | :---: | :---: | :---: |
| 1884-85 | $\underline{9} 09$ | 1899- | , |
| 1885-86 | 199 | 1900-01 | 1,191 |
| 1886-87 | 245 | 190 |  |
| 1887-88 | 250 |  |  |

Annual Eurallment-Cont. $1888-89$
18899.90
$1890-91$
$1891-92$
$1892-93$
$1893-94$
$1894-95$
$1895-9$
18969
$1897-98$


## Affiliated sehoole.

There are now 165 schools in Texas affiliated with the university. The university has estab-
lished the office of visitor of schocls and valuable assistance is
given principals and superintendents. The increasing strength of the university is directily traceable to a growth in efficiency of tory schools.

Minem and Metallurg
The Thirty-Third Legislatur provided for the establishment of a school of mines and metallurgy compilation of this report final steps in carrying out th.
slon had not been taken.

University Extension.
In keeping with the purpose of the untversity as a State educaple of the State, the university extension department was organ zed. During the three years of able services to large numbers of able services to torge numbers of sessions of the university and is doing its utmost to assist in the est that it is possible for it to help. Its activities are organized as follows: Correspondence divi
sion, public discussion division sion, public discussion division, fare division, pubisc lectures and publicity divisfon, public welfare division and
hibits division. The university is also proving
to be of great benefit to the State
through its hureau of economic through its iureau of economic clays, oils and other minerals, es clays, ois and other minerals, es-
tablishing the value of deposits in
various portions of the state rarious portions of the state
Univeraity Faculty.
Dr. Sidney Edward Mezes dont. The faculty consists of orty-five professors, ten associte professors, twenty-eisht adfunct professors, sevonty-throe in
utructors,
twelve tutors, ninety our gtudent assistants and seven ceen Mbrarians and assistantm
A. \& M. COLLEGE The Agricultural and Mechanical College of Texas, located five miles
south of Bryan, in Brazos County,
is one of the great schools of its
class in the country. It is an progress of the development of State and is wielding a greater fluence over the people than ap the University of Texas. Wit lower requirements for admissio
it is gathering the young men it is gathering the young men the state from the farm, the sind not only a solld educational four
dation. but is training them dation, but is training them animal husbandry, dairying kindred lines, as well as in en neering in its various branc people of Texas.

## The Frigin of the College.

 provided for a certain amoun public land to be apportioned each State. The amount appo lent to 30,000 acres for each Se tor and Representative in gress. It was provided that establish a college where the pithin mary object would be to teach mis itary selence and such branches mechanic arts. Under this a Texas received Federal script if Texas received of land. This180,000 acres of
was sold for $\$ 154,000$. Whe college was opened in 18 and its scope of work has co stantly increased and in 1
 College Courmem the ft lowing courses: Agriculture, at mal husbandry, architecture, botany, zoology, chemistry, mi eralogy, creamery manageme dairying, eivil, electric. highw ing; horticulture, languages, ematics, speakins. physics, ve

A two-year course in textile
ineering is provided for those unable to take the full four-year course. In addition to course in agriculiure is offered, also a sumtical farmers

Military Trafning.
Regular training in military sci nce is a feature of the work o
the college. The college is in class BA, the highest military rank given to schools by the United States Government. The cadets cer of the United States Army. Tro graduates, a principal and an alternate, are appointed each yea to the regular army on the same
footing as graduates of West Point. The College Faculty.
Charles Puryear, president pro ty-eight profussors and assistants, besides many instructors in varibus departments. Prof. B. Youngblood is director of the State exchich has developed into an imThress in agriculture in rexas. eing enlare plant is constantly hang modern buildings located on The rapid growth of the college is equiring a constant extension and largement of facilities.
OLLEGE OF INDUSTRRIAL ARTS. The College of Industrial Arts, reated by an act of the Tw, was
seventh Legislature in Apprile Seventh Legislature in April, 1901 ,
nd a commission crea ed for the urpose located the college for the on. The cornerstone of the mainne first was laid Jan. 10, 1903, and he first term's work began on
ept. 23,1903 .
This school is situated on a camThis school is situated on a cam-
us of seventy acres of rising
round overlooking Jenton. The college plant conists of ten substantial buildings,
mong them being the academic mong them being the academic rts and science building, the hos-
ital building. Stoddard, Hall, the
ormitory, the president's home lormitory, the. president's home, a
hotography building and a central hotography building and a central
eating plant. The college buid-
ngs are equipued with a view of irnishing students and instructors ith every convenience for secur-
ig the best results in the courses ursued. Not only is this courses on prepared to give instruction young women of Texas, but it udents are somelike as possible. mosphere of culture. A woman tys. and health is consideredacime and health is considered of made to provide right living
conditions that the students may
be in good health both mentally and physically.
Course of Study

There are three general courses leading to graduation, as follows: and (3) fine and household arts Each of these courses is three years in length and carries with it opportunities for practical work
and providing for instruction in manual training, nursing, dairying, laundering, light construction Work and the various branches of
domestic economy. Instruction is also given in the social, natural and biological sciences.
also provided, as followses are also provided, as follows: (1)
Dressmaking and millinery, (2) commercial art-shorthand, bookkeeping and typewriting, and photography. These vocational or
trade courses are designed for women who are preparing for a practical trade, and they are deyear. to be completed in one tical course, extending over on year, in housekeeping to qualify sume the responsibility of a home The college also has very effi cient departments of music and in piano, voice and violin. This is the only' State institution that has a department of music.

$$
\begin{aligned}
& \text { Student Expenges. } \\
& \text { n is prese }
\end{aligned}
$$

Tuition is free, but fees aggre rial, hosnital, etc. A fair average expense of a student per annum $\mathrm{s} \$ 265$.
The conrollment and Faculty. The colleege graduated forty tional students received vocationa certificates for 1912-13. The total enrollment for the year was 570 The faculty consists of thirty-four
teachers who are specialists in their respective ines. W. B. Biz zell is president of the college.

STATE NORMAL SCHOOLS There are four State normal young men and young women in the science and art of teaching. trol of a board of ender the conpointed by the of of regents apthe president of the board, the Suerintendent of Public Instruction, ho is elected by the people.
Sam Houston Normal Institute. tute is the oldest of the Texas State normal schools. On the anniversary of the battle of San Ja-
cinto, April 211879 Gov. Roberts
slgaed the bill establishing this
school for the training of teachers
It was named in honor of the hero of the battle of San Jacinto and iocated at Huntsville, where he where his body is buried
From a single building on a fivegrown untll it has five bulding and grounds comprising twentythree acres. Its faculty has inand jts sludent body from 100 to 1,200, including the summer school enrollment.
Courses of Study.
Primary and arts, agriculture, Primary and arts, agriculture, science-mathematics and historyEnglish courses. Each student on entering is a
these courses.
$\underset{\text { Statistical. }}{ }$

 H. F. Estill.

Went Texas State Normal was established in 1910 State Normal in the Panhandle section of the State. The initial appropriation by the Legislature was $\$ 50,000$. of forty acres of land and $\$ 100.000$ by the citizens of Canyon. The present
$\$ 250,000$.
investment is about
This institution has the usual academic and college departments and, in addition, sewing, cooking. manual training and agriculturc. It aiso has the advantage of a which 135 children of publicsction age receive instruction and the their correct observation and practice. The normal enrollment was 175 the first year and mer school enrollment of 736 .
The faculty consists of nineteen proressors and instructors and our teachers in the training school. North Teras State Normal.
The North Texas State Normal is located at Denton. This school enactment in for by ingislative splendid progress in enlarging the scope of its work and in its enrollment. The plant consists of a located three modern buildings. The usual academic and college departments are conducted and, in addition, courses in manual train-
ins, agricultare, teaching, etc., ase ing, agricultare, teaching, etc. a.e
offered. Bruce is the president. The W. H. Bruce is the president. The
facuity consists of twenty-five
professors. assistants and instructprofe

The enrollment for 1912-1: ion 1,496 students received striction during the year.

Sonthwest Texns Normal. The Southwest Texas Normal, or by legislative enactment bildings and grounds is $\$ 152$ The iepartments and the cour already described in connect with other normal schools of State. enrollment in 1912-13 The enrollment in 1912-13 68. The summer school attrad
750 students.
$\mathbf{C}$. faculty consists of twenty professors assistants and instre ors.

DENOMINITEONAL SCEROOL. There are many excellent aca mies, colleges and schools of hig, ported by religious denominatic also private schools for boys girls, young men and young dies. In addition to preparat leses, universities and institute higher learning carrying appro lassical courses, and aiso prov of a nigh order
The denominational and priv schools in Texas are growing efficiercy. There are many rank with more tamous and insitutions in the East in ranse of work, thoroughness

## LEGISLATITE APPROPRIA

TIONS.
The approprlation bill, passe the special session of the Thit left the Governor's hands, cart approprialions for the support the educational institutions of State for the fiscal yea
and $1914-15$ as follcws:

##  <br> slations Iu.

 Som Holston Normal ArisNorth Texas

Total $\qquad$
SCHOOL FUXDS AND REVEL
The tolal amount of land aside by the Fepublic of Texas purposes approximates $\begin{aligned} & \text { acres. This has been divided }\end{aligned}$
tween the University of Texas, the permanint school fund and the
permanent
county school fund. permanent county of the Republic set aside threc leagues, or 13,227 acres, for each county or counties
organized thereafter for primary organized thereafter for primary
shools and academies, and fifty schools
leagucs of land, or $2 \approx 0,450$ acres. for the establishment of a university. The state of Texas rerunded added on the rniversiny fund 1.000 , uit acres of land. The land set
sid. for shools in countits was inaliy increased from three to four leasues. Considerable land was also granted to other educaIn the early history of the State lands were granted to various railroads, the railroads to do the surveying and the State to retain the even-numberool land and receipts from sales were placed in the permanent State schale of county lands, or the equivalent in money or other lands donated to the countifs after the allotment was expermanent county school funds.

## STATE PERMANENT SCHOOL

The State permanent school fund is composed of land notes, unsold lands, interest-bearing bonds, rail road bonds and cash on hand. It principal of the school fund, money received from the sale of land etc., in independent school distric improvement districts, etc., in Texas. Interest on land notes and other securities form the basis for a fund which, together with other
income. the source of which will be referred to further on in this section. is annually distributed to districts in proportion to the offiistricts in proportion to the offi
Theondition of State Fund.
able on the official report avail permanent school fund follows:


 State tax.................

 Interest cn bonds.............. Treasu
Tpecial
troller
 troller
Interest
Delinquen
Total. on special deposits.

(Note-The above statistics apply to the fiscal year ending Aug. 31, 1912. Later
data je not avallable. The fleures, how-
ever, whil not vary materially.) COUNTY SCHOOL EUND

Total. ................... $\overline{\text { 812,174,441 } 61}$
 *Stato apportionment $\quad$.......... $\$ 7,250,66519$ Grand total $\ldots \ldots \ldots 1 . \ldots$

## COMMON AND DISTRICT

The public schools of Texas conist of common schools, organized ryous counties, and independent shools, incorporated by a vote of property tax paying voters of the istrict. Of the former there are ndependent districts are seventyfour schools receiving aid from he State for agricultural, domesinstruction, thirty-six of which are situated in rural districts.

Public School Statistics. 1911-12 ionowing statistics are for available. The data for 1913-14 had not been compiled at the office of the State Superintendent of Scholastic popalatic Population.



Total State appropriation:
.................... Number of Districts.
Common school districts....... 8,053


$\qquad$ . $830,478,289$
Total value.
 Cost of maintenance Common schoos
Fror all purposes
Raised by taxes (local) Independent faxes (locals

 by many school districts mrom received
school fund exceeds the amome State by many school districts from the State
school fund exceeds the amount ralsed by
local taxation.)

The number of new school
houses erected per year has averhouses erected per year has aver-
aged over 625 for several years, aged over 625 for several years,
the approximate amount thus the approximate amount then annually being $\$ 2,600,000$. Teachers In Texns.
The latest offcial records rela-
tive to Tevas teachers are as folThird



Total work of the nubite schools is supervised by regulat celected is supervised counties and by the County Jucige
in an ex officio capacity in 122 in an ex

School IAbraries
The number of schocle with liTharies are now over sojgio volumes in these libraries, valued approxymately at $\$ 260.0$ is vipment is vied at $\$ 180.298$.
In 1913 Sthe Hing Schools. Edu-
schools cation classified the tig First class
Second class
Third class $\qquad$
Total.$\begin{array}{r}144 \\ 134 \\ 90 \\ \hdashline-98\end{array}$

## EDUCATIONAT, GEGISI ATION

 The Thirty-necond lefgislature laws: 1. The rural high scinol law tion and authorizing it to classify the country schools into primary high schools; to prescribe courses of study therefer; to establish rural high schools and to determine their location: ditricts in cooperation with district school trus tees in work of estalibishing highschools, and appropriatirg $\$ 50.000$ a year each for tro fiscal year for establishing, equipping and maintaining departments of agri culture, manual training and do-
mestic economy in school disticts, to be granted to districts in sums of not less than $\$ 500$ nor more than $\$ 2,000$ setting aside the same State.
2. The teachers' new certificate law, finplifsing mifing and making more pedagogical the cer
tificaton of teachers. under which tivecortificates of State-w!de valid-
ity must be issued by the St tion and recorded in his office. 3. The county line school distr aw, authorizing the organizati of either a common or an in territory in two or more coun and providing a method of aboli ng independent school district 4. The law empowering Com maintain an agricultural exp ment farm for the county, whe be demonstrated. submitting to the people the stitutional amendment authori making the terms of office of boards of regents and manag of educational, eleemosynary a years, one-third of the memb of each board to be elected or ointed every two years. This become a law.
6. The State of regents law, vesting the con and management of the $n$ chools in a board of five pe Governor, the State Superinten being made president of the bo ing for the adoption of unif textbooks for use in the py schools of Texas for a term of Cars, by a board of nine pers ogether with the Governor pointed by the Governor f iist of thirty teachers of red nized scholarship and professi
ability, five of whom shall be mary teachers. From this nine shall be selected to serv a board, one of whom shall rimary teacher. The list president of the college of Urial Arts, the president of uperintendent of Public Inst The Thirty-Third Legislat assed a law governing the truction of schoolhouses. schoolhouse erected must conf to certain specifications with
erence to lighting, heating erence to lighting, heating The plans for schoolhouses in c mon school districts must be ent of Public Instruction and ndependent districts the $p$ p must be approved by the Supe tendent of Schools. The law quires that, after the plans $h$ the County Superintendent or uperintendent. a report shall transmitting all evidence. Un
his law more hyglenic, sanitary d modern schoolhouses will be ilt and better provision will be e tilation than has been made in the
past, when, in many cases, schoolhouses were erected without re-
gard to the health and comfort of gard to the health and comfort of
the children and in violation of the children and in violation of govern with respect to sanitation
heating, lighting and ventilation.

## CHOLASTIC CENSUS

 The following tables present the scholastic population of common the apportionment of the schoolrund for the scholastic year 1913 4; also the scholastic population und for the independent districts

## COMMON SCHOOL DISTRICTS.

 $\underset{\text { Appron }}{\text { Shand }}$ Countles lation, Find
rmstrong
tascosa
ustin
$\substack{\text { untin } \\ \text { andey } \\ \text { anderap } \\ \text { astron } \\ \text { sylor }}$
3ee
sell
exar
llanco
larde
ord

$\underset{\substack{\text { razoria } \\ \text { rewster } \\ \text { rewas }}}{\substack{\text { and } \\ \text { and }}}$
rewster
riscoe
rooks
rown
urleson
und

## 

## aldwell alhoun allahan

allahan
ameron
amp
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lay $\begin{aligned} & \text { lan } \\ & \text { oche } \\ & \text { Cke } \\ & \text { leman }\end{aligned} .$.

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| commen | *htow | Bistriets | Cont. |
| :---: | :---: | :---: | :---: |
| Counties |  | seholastic <br> stion. <br> rition. | Appr <br> School <br> Fund |
| Dallana |  | 1:13-14. | 1413 -14. |
| rallas |  | 8, $\overline{6} \%$ | 5 |
| Deas Sm |  | -21 | $3.64 \%$ |
| Delta |  | \% 30 | 1.43 |
| Denton |  |  |  |
| Dickens |  | 4.6.41 | 33,697 |
| Dimmit |  | 1.68 | 6,104 |
| Donley |  | 1,051 | 7.385 |
| Duvai |  |  |  |
| Eastland |  | 4.36 | 30.748 |
| Edwards |  | - 4 | 1.568 |
| Elis |  | 7 7,91 | 55,937 |
| Erath |  | $\bigcirc 110$ | 20.790 |
| Falls |  | 6.628 | 44.136 |
| Fannin |  | 8 | 50.60 .5 |
| Fisher |  | 1, 8.80 | \%0,435 |
| Floyd |  | - 88 | 5,481 |
| Fort Bend |  | 956 | ${ }_{6}^{6692}$ |
| Franklin |  | ${ }_{2}^{4,116}$ | 33,747 14.812 |
| $\underset{\text { Frio }}{\text { Freestone }}$ |  | 4,205 | 29,45\% |
| Gaines* |  | 1,943 | 13,601 |
| Galveston |  | 1,259 | ${ }_{8}^{1} \mathrm{~S} 813$ |
| Gillesplo' |  | 1,767 | ${ }^{2} .3 .887$ |
| Glasscock |  | 1194 | 1 1,368 |
| Gonzales' |  | 5,8,860 | 14.560 |
| Gray |  | 713 | 4,901 |
| Grayson |  | 7.813 | 54,901 |
| Grimes |  | 4,046 | 15.785 |
| Guadalup. |  | 5,54 | 38.815 |
| Hall |  | 1,617 | 118.895 |
| Hamiltan |  | 2,744 | 19.208 |
| Hardena |  | 1,527 | 1. 1882 |
| Hardin |  | 1,712 | 11,884 |
| Harrism, |  | 7, 8.81 | 54, 747 |
| Hartle, |  | 8.009 | 58,310 1,463 |
| Hastic: |  | ${ }_{2}^{2.2 T 4}$ | 15,918 |
| Hemph: |  | 2, 728 | 15, 5 |
| Hender |  | ${ }^{4.526}$ | 31,652 |
| Hill |  | 7,822 | 28.896 54.754 |
| Hockle. |  | , 26 | ${ }^{54,182}$ |
| Hoodi ${ }^{\text {Hoph }}$ |  | 1,786 | 12.502 |
| Houstu: |  | 8,598 | 60.186 |
| Howar |  | 8.804 | 50.747 |
| Hutchiri... |  | - 2 | 1,596 |
| $\xrightarrow{\text { Irion }}$ |  | 2.4 | 1.421 |
| Jacksor |  | 1,465 | 17,094 |
| ${ }^{\text {Jeff }}$ Dasper |  | 4.105 | ${ }_{29}{ }^{\text {\% }}$, 365 |
| Jeffersco |  | 1,787 | 3,017 12.509 |
|  |  | +473 | 13,311 |
| Johnsou |  | 5.984 | 6,524 41,888 |
| Jrnes |  | 3.416 | ${ }_{23,919}$ |
| Karnes |  | 3,084 6.180 | 21,588 43,180 |
| Kendal |  | 709 | 4,963 |
| Kent |  | 504 | 3,528 |
| Kirnble |  | ${ }_{71}^{699}$ | 4,613 |
| King |  | 234 | 1,638 |
| Kinney |  | 314 | 2,198 |
| Knox |  | 1, 1,351 | ${ }_{0}^{2,107}$ |
| Lamar |  | 8,122 | 56,854 |
| Lampasas |  | 1,420 | 1,092 |
| La Salle... |  | 1,705 | 11,935 |





GDUCATIONAI EXPENDITERES The annual expenditure for education in the Vnited States is about
$\$ 40.000 .000$. School books alone cost less th:an 3 per cent of this sum, or the,
000,000 . Now, while we spend $\$ 12,000,000$
for school books at which we for school books, at which we lowing sums every year and make no objection:
Cigars and cigarettes $\$ 215,-$ Cigar boxes $\$ 7,500,000$

Liquors $\$ 440.000,000$.
Candy and soda water \$117, One would think from this that when we spend for the stomach's sake we don tomplain, end, brain it is for the int what you will-ne think $\$ 12,000.000$ a large sum-Philadelphia Enquirer

DISTRICT OF COLUMBIA. The municipal government of the att of Congress approved June 11, 1878. in three Commissioners. two dent from citizens of the D strict having had tliree years residence
therein
immediately
their appointment, and confirm misshe Senate. The other Con dent of the United States from th corps of engineers of the rank senior to Captain, or be Captain who has served at leat
fiftecn vears in the corps of eng neers of the army. The Commit sioners appoint the subordinate
fictal service of sald governme except the Eoard of Educatio Court of the District of Columb Commissioners Cuno H. Rudol (Republican) and John A. Joh
ston (Lemocrat), whose terms et pire Jan. 24. 1913; Major W. Judson (nonpartisan), corps of gineers. Uniced States Army. tailed during the pleasure of sccretary, William Tindall. Ofilio
of Commissioners, District Bull of Commissioners, District Bulh ing, Washington, D. C.

BRITISH ROYAL FAMILY. people to the royal family for support are as follows: The Kit and Queen $\$ 2.350 .000$, Queen All $\$ 30,000$. Princes. Loulse (Duch
of Argyll $\$ \$ 0,000$ Duke of C naught $\$ 125,000$, Duchess of E burgh $\$ 30,000$. Princess Beatr
$\$ 30.000$. Duchess of Albany $\$ 3,0$, Duchess of Mecklen burg-Strel
$\$ 15,000$, trustees for King Edwa \$15,C00, trustees for King Edw
VII.'s daughters $\$ 90,000$; total VII's daughters $\$ 90,000$; total
790,000 The King also recel the revenues of the Duchy of $L$ caster. During vecent vears th have amoun per annum. The prince of Wa nues of the Duchy of Cornw amounting to about $\$ 500$, child marry dowries are usually vided for them. The last of children of the late Queen Vic
ria to marry Princess Beatrice ceired $\$ 150,060$ as dowry from British fecple by Parlament
pen grant.

Tro thousand six hundred st and private schools in the

An average of nearly two sch houses are erccted
A proiessional acrobat says a person may stand erect with have sufficient courage to $m$ the attempt) fall flat on his $b$ or on his chest without the slig
est injury or bruise. He has me iv to incline his head forward backward, as the case may be, his breath and make no

EXAS RELIGIOUS GROWTH;

## DENOMINATIONAL STATISTICS

Under a constitutional guarantee supported by adequate and favorble laws, Texas citizens enjoy freedom of religion in belief and prace. Nore than thirty creeds have been established and are prospering. working in harmony in the promotion of higher ideals and a better tizenship. Development in rellgious matters has kept pace with the crease in population. tions in the state. No sectiondis in a house of worship. Churches EMBEIESHIP STATISTICS

AND PIROPERTY VALUES
Reports gathered from various ligious organizations in Texas show a healthy increase in ty. A comparison of official rerits Andicate a slightly better ogress than the increase in pop-
ation of the State. The populaon of Texas increased approxiately an average of 2.7 per cent r year during the decade of
$00-10$. At the same rate of inease, Texas had a p population of Basing the increase in church embership at the rate of inwing results, which may be fely considered as approximate-
correct, are secured: correct, are secured:
Percentace of Population.
exas Population, $1913,4,148,255$ )

$\underset{\text { members }}{1013}$ Memberkhip.

hearing Denomingtions hodist Episcopal, South..
$\operatorname{man}_{\text {ebyt }}$ Cathouics.
eciples of Cerist...................
Cennus of 1908.
(Population, $1906,3.536,618$.



## Hstadelph trchans urch of

reches of the Living God (co
red
 ngregatio
cilphes
ikards
ntern
Or
73.55 tern Orth
ngelical
ngelistic cal bodies.......
stic associations
Evangelical Synod of ependent churchès.
ish congresations. Tish congremati
ter-Day salnts
heran bodies.



Note-The latest official source Note-The latest official source
is thigious statistics for Texas is the census of 1906. The statistics of this census. includes all ference with accounts for the figures given under the caption "Leading Denominations," which were furnished the editor by officials of those

$$
\begin{aligned}
& \text { Other Religgons statieticu. } \\
& \text { umber of organizations....... }
\end{aligned}
$$

 Number of Sy suay school
teachers
ne,

 Note-Statistics based on census of 1906.
The 1913 report of the Methodist Episcopal Church, South, shows a membership of 280,935 in Texas,
churches valued at $\$ 7,193,014$ and parsonages valued at $\$ 1,535,268$. The Baptists report a ${ }^{2}$ member$\operatorname{ship}_{\text {valued at }} \$ 6,377,034$.

## National Figuren, 1912.


 ganization in the cities of Texas. There are forty active or raniza. own buildings and equipment. tions, ten railroad and twenty col
ege. The total membership for her state is 14,178, of which numaverage are active. The dally The Y. M. C. A.s of Texas are largely supported by membership rees and rents. In some instance these funds are supplemented by
subscriptions. It takes approxisubscriptions. It takes approxisupport.
Other Y. M. C. A. Statistics.

Y. M. C. A. Buildings City.


Y M. A. World, 1912. The returns made annually to C. A. from all Nations for 1912 show that there were 8,340 associations with a membership of
897,000 . There was an increase of 300 associations during the year. Of the property owned by the association, the American branches $\$ 77,000,000$. Germany has the largest number of associations, 2,300 ; Austria ranks second with 2,000 . The German membership, how ever, is only American rolls show 496,000 names.

MEXAS Y. W. C. A.
The Young Women's Christian Association of Texas has entered upon three distinct lines of wor city and town, student and a membership of 6,700 , the assoa membership of ${ }^{\text {ciations owning or controlling }}$ ciations
property
owning at or $\$ 372,000$.

Clity Amociationa.


## St

schoo
dent Associations.
College of Industrial Arts Sam Houston Normal
School for the Blind. School for the Blind.............................
Southwest Texas Normain University of Texasm..................... At West Texas Normal..
 Danel Baker Coilege.............Ban Mrown
Howard Payne College.......Brown Simmons Conlege...... Texas Chrsistian University... Fort ${ }^{\text {Geo }}$
Trinity University
 Kidd-Key College. ..................Shert
Texas Fairemont semiary. Weathen
Three private schools in State also have the advantage State also have the
student associations.

## A GIANT TREEL

A giant yellow fir tree has b ington, 66 feet in butt circum ence, 128 feet to the first 11 and 300 feet in length. The 8 limb is 109 inches around. A can be hewn from it 250 feet 10 at the other. If it can be brov to salt water in one piece it wil the largest stick logged in
world. Its age has not been culated, but ostumps near by are only six feet in diameter $h$ 500 rings, meaning 500 years life. This tree may have b growing When Hiram, King
Tyre, was getting out timber
Solomon's Temple.

## TELEPHONES IN TEXAS.

 A census on the telephone telegraph industry in Texas c Secretaries and Business Men's sociation shows that there are independent connecting teleph companies, 30 independent nonc telegraph companies operating the State, and that there areproximately 300,000 telephones use.

DRINKING AND SMOKING The wealth of goid and si and paper money filling the va of the Federal Treasury is du no smanl measure to the rece card playing of the American ple during the fiscal year 1 ected from the tobacco and 1 l manufacturers and dealers du the year.
Two Oceans Pass, In Yellowst Park, is so named because w ever there is a shower in the overflows its waters spread over the edge of the contine divide and pass into tributare rivers which flow to the Atla
and to the Pacific.

## MAKING GIANT STRIDES IN

## DEVELOPING MANUFACTURING

Texas is a State with many natural resources and enormous quantities f raw material, both nineral and vegetable, for manufacturing purposes. Not many years ago nearly 100 per cent of the manufactured products consumed in the State were imported. Today the State is pro ducing a great vat in some lines. Notwithstanding an increase of leading al oth mumufacturing plants and 95 per cent in the 6 per cen icts used in period of ten vears the opportunities for new ost of mater dustries are more vumbrous and more inviting than ever before

## ARGE INVESTMENT:

IN TEXAS $f$ iCTORIES
The total money investment in anufacturing enterprises in Texas ared with $\$ 115,665,009$ ive years revious, the increase being 87.5 er cent. or 17.5 per cent for each laking the census.
Since 1909 many new factories ave been established and others ave greatly increased their capac-
ty. Based upon specific informaion concerning the orogress in manufacturing lines, it is conserva-
ive to state that the figures for ive to state that the figures for
909 for the State may be increased n the same proportion for 1913, as s indicated by the Government figres for 1904 and 1909 . This methdsed in connection with individual nterprises or in arriving at aproximate statistics for any one inustry of the State.

Basis for Estimating


Added wealth per day....
Ln the following table is found a classification of Texas manufacbering industries showing the num of wage-earners, value of products and value added by manufacture for the year 1909, the date of the fication petroleum refineries, of which there were eight, and six other important industries, producnug more than a million dollars an paper; coffee and spice roasting and grinding, mineral and soda waters, smelting and refining copwood preserving, are included under the classification of "All Other' as a precaution against disclosing indive reason thirty other indus-
tries producing more than $\$ 100.000$ tries producing more than $\$ 100,000$
of products annually are similarly of product
classified.

GROWTH OF LEADING INDUSTRIES.



 | Material or Product- |  | Qlantiv. |
| :---: | :---: | :---: |
| 1903. | 1904. |  |





Rice Cleaning and Pollshing.


## Steam Laundries.

Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. In 1909 there were 127 such establishments in Texas, six-ty-six of which were more. The following statement summarizes the statistics:
 Wage earners (average num-
ber



## Custom Gristmills.

Statistics for custom sawmills and gristmills are not included in the general tables or in the totals for manufacturing industries. which there are only two, can not be shown without disclosing in-
dividual operations, but those for

custom gristmills are presented

 Proprietors and
Salaried employes


(Note.-Figures of 1904 for Brownsville,
burre, Marshall, Sherman and Temple are
burpe, Ma
a pailable.


TEXAS MANUFACTURING;
STATISTICS FOR 1913
The census of 1909 contains the last official data on all manufacare however, certain lines on
which reliable data is available for which reliable
the year 1913 .


Cotton Ginneries in Texas. Number of ginneries...................965,693

Portiand Cement Plants.


Numbor Aetive Flour Mills.
1818 active flour mills,

Whas
Namber
21,164
886,261
tons of of anthractte coal,862 tons of coke, 182,241 cords ofWood, 3,500,798 barrels of oil and
714,292 thousand feet of gas. The
consumption in 1913 , if the statis-tics were available, would show asharp increase.
in total value of manufactured in total value of manufactured products. Houston leads in the
number of men employed, includ-
ing in the statement laborers in ing in the statement laborers in shops. San Antonio ranks third in the list of Texas cities in manuries in Dallas increased 23 per cent in five years and Houston 19 per cent The average number of
wage-earners in 1909 was 42 per cent larger in Dallas than in 1904 . The increase in Houston, the second city in paint of ralue of prod-

## POWER POSSIBILITIES AND

## PUBLIC UTILITIES IN TEXA

Texas is at the beginning of its industrial development. The later power contained in its great fields of lignite and the advantages industries to come through the conservation of water for power purpose are subjects of study for present-day engineers. Engineers gas, and wit demonstrated the practicablity of the use of producers gas, and enormous deposits easily accessible it remaies to send cheap electric powe sufficient capital to erect plants and area covering more than one-half th State.

## DEVELOPING POWER

RROM TEXAS LIGNITE
(By A. C. Scott, Ph. D. Dallas.) The development of the lignite resources of ago and the output
twenty years ago of lignite in 1912 was about 750 , 000 tons.
The location of the principal lignite mines in operation at the
present time is given in the folpresent table:
Location-Alba-Wood Calvert-Crockett-Housto
Como-Hopi
Hicks-Lee
Jewett-Leon
Lytle-Medina
Mount Pleasant-TItus
Phelan-Bastrop
phelan-Bastrov
Rockdale MIlam
Willa Point-Van
zarid
Analynes Texas Lignite.
The following table, taken from University of Texas Bulletin No
189, shows results of analyses of 189, shows results of analyses of ent lignite mines in Texas:

$$
\begin{array}{ccc}
\text { From. } & \text { To. } & \text { Average. } \\
\text { PCt. } & \text { Pet. } \\
\text { P.30 } & 37.26 & 25.17
\end{array}
$$



## An Economical Fuel.

The greater part of the lignite mine output is used under steam boilers in the various industrial plants in the State, and while it

S the most economical fuel he small or medium-size powe he railroad haul is short enoug o add not more than 50 c or 7 per ton to the mine co

$$
\begin{aligned}
& \text { roximately } \$ 1 \text { per ton. } \\
& \text { The freight and handing } \\
& \text { are in most cases so large }
\end{aligned}
$$

are in most cases so large co improvements in apparatus to $r$ duce the amount burned to pr is an important and direct eco omy for the industrial concern

Gas-Producer Succensful. During the last few years t gas-producer lias been placed successful service with Texas from lignite is mostly used power in gas engines designed operation with gas averagin cubic foot; the gas is also us as a fuel for burning lime a could well be used for burni The use of lignite in the pr ducer to furnish gas. for industr power effects an economy of abi bo per cent over the steam ng steam engine.
There are now about twent three power plants uperating w lignite gas about 200 tons per day a having a total rated gas engi capacity of approximately 12, horsepower

Gam-Producer Plantm. the focation of table indical plants:


Totals................ $\overline{37}^{\mathbf{3 7}}$
Tests made upon a 600-horse power producer gas average grade of lignite in Smith producers, showed an average development of power of 545 kilowatt hours, or hours per ton of lignite.
Composition of Producer Gam. The composition of lignite producer gasis or less variable in character, but as a general indication of percentage of constitu ents only, the following analysis
by volume is significant:
From. To. Average


Tranamiasion of power 127.1
The economic importance of espower plants on lignite territory and transmitting electrical energy 0 towns and cities whin a ration in a rather desultory manner or the last four or five years, but no definite plans have as yet been onsum lants.
Data An Economical Plan. been obtained to show conclusirely that this method of producing power, besides than that of burning the lionite under steam boilers, eliminates the reight haul charges and losses in most favorably with the cost of power production with a hydroelectric plant, the total of fixed and operating higher in many cases later would be true of the producer gas engine installation.
The average cost to mine a ton and with proper provision in a large producer gas installation for the recovery of tar and ammonia the value of these by-products will cost of mining the lignite.

Opportunities in Texas.
In the year 1900 the capital in-
vested in manufacturing in Texas
was about $\$ 63.500,000$; now it has reached figures between $\$ 25000$ a
000 and $\$ 000,000,000$, and such a use of the enormous tonnaze of fuel as exists in the lignite territory of Texas to produce cheap further impetus to this phenomenal development of manufacturing in the state.
isfactory conditions for the satdistance transmission of electrio power, and under conditions of cheap power the many cotton gins plants and public service utilities in the north part of the state would find :t economical to use and their number would doubtles be increased. In the south part of the State such power could be
utilized to the fullest extent for rice mills, lumber mills, sugar mills, Irrigation plants and the handiling of merchandise on the wharves of Texas ports. tion to state that during connecyears prior to 1912 Texas city increased its tonnage of frelght tons, and Galreston increased its tonnage handled from 567,160 tons to $1.369,296$ tons entered, and from
842,194 tons to $1,815,031$ tons cleared.
The distance necessary to transmit electric power to serve the in dustrial requirements, both north
and south, can be readily covered and the fact should not be los sight of that while an increased to keep pace with further indus trial development there results when gas power is used instead of steam power, ${ }^{2}$ conservation of
substantially 50 per cent substantially 50 per cent of the though the lignite tonnage still untouched be enormous, the industrial development of this Stat excuse can be given for any un-
necessary waste of the fuel renecessar
sources.

## ELECTRIC LIGHT AND

POWER PROPERTIES The portion of the public utili
ties included in the electric ligh
and power properties in the Stato and power properties in the Stato



WATER MOST VALUABLE
OF NATURAL RESOURCES
(By T. U. Taglor in U. S. Geological
The water supply of the United the life and pursuits of the people than any other natural resource. In the arid States the limit of mined by the amount of water available for irrigation, while in all parts of the country the inand towns makes necessary additional water supplies for domestic and industrial uses, in procuring quallty of the water that may be obtained must be considered. The location of manufacturing plants may aepend largely on the waterter of the water. The notable ad vances made in the electric trans utilization of water powers for the operation of manufscturing establishments, railroads and municipa lighting plants, many of whichare at which the power is dereloped. The inteliigent establishment and maintenance of enterprises or of water demands a thoroush knowledge of the fiow of the streams and an understanding or This knowledge should be based on data showing both the total flow and the distribution of the flow normal fluctuations may be provided for As the flow of a stream is variahie from year to year, estionly from a study of observations covering several vears. The rapid increase in the development of the States has caused a great demand
by engineers for information it is now generally realized tha the fallure of many large powat irrigation and other projects ha were due to the lact that the plan. trustworthy information sufficient to the water supply.

## TELEGRAPIT AND TELEPHON

Texas has 400,000 miles of tele graph and telephone trate the motest sectio:s of our agricultural districts. Seven cables span the cific, which afford Texas direc communication with all foreiga, countries. There are fifteen wire less stations in
approximately
300.000 There ar in use in the state. We have the longest telephone line operated by one company in any one State. Dalhart. There are four telegraph companies operating in the state one or Texas.

Texas is the second State in the Union in the value of products of

The prevailing hours for labor in Texas ranges from 54 to 60 hourt per week.
Texas leads the United States in the percentage of increase in man
ufactures for 1909 over 1904 .

Texas consumed 61,348 bales of of 14,942 bales as compared with the year previous.

Slaughtering and meat packing turing industries in Texas in the value of its production.
Nintety-two and seven-tenth Texas are males 16 years of age or over, 5.5 per cent remales 16 year of age or over and 1.8 per cent of wage-earners under 16 years of age are found in the cotton goods and printing and publishing indus. tries.

It is said that sand will, under pressure, emit sounds of distinc musical value if a quantity of sand be put into a yessel and sub-
mitted to pressure by friction bed tween the presins, sounds are produced which sometimes resemble higher is the pitch of the not

## STATISTICS OF THE NINE

## LARGEST CITIES IN TEXAS

In 1910 there were 91 cities in Texas having a population of 2,500 or more, 4 of which had a population of 50,000 or more, 4 with a population of 55,000 to $50,000,13$ with a population of 10,000 to $25,000,19$ of 5,000 to 10.000 , and 51 with a population of 2,500 to 5,000 . There were 220 cities, towns and villages of less than 2,500 inhabitants. Since the census many of thise cities have made large gains in population as well as splendid prowress in extensions of public utilities and in civic improvements. Following arc statistical comparisons of the nine leading cities of the State.

## OOLI FIRET DIVISION <br> CITIES OF THE STATE

San Antonio, Dallas, Houston and Fort Worth are the in population in 1910 in the order named. These cities have all mad rapid growth since the census and
three of them, at least, are in the 100,000 class, with one approaching hat mark. Fohowing are some public utilities, building permits area, etc.:

AREA AND POPULATION. Sa. Area, Population
San Antoni
-Houston
Houston

*Area increase...16.8.....73,312
Area increased to 32 squars
1914 Population Estimntes
The cities of San Antonio Dailas Houston and Fort Worth Dallas, mouston and fort worth have and population growth since the 1910 census. Fort Worth is apulation. While Dallas. San Antonio and Houston estimates of popula
ASSESSMENT, BONDED DEBT.


PUBLIC UTILITIES.


fouston
fort $\begin{aligned} & \text { Wor } \\ & \text { nilos }\end{aligned}$
note
shell streets are included. The data available shows that Dallas has 61 82 miles of macadam, Houston 27 miles of permanent paving and 83

# WATER MAINS AND PARKS. 

 BUILDING PERMITS


## POSTOFFICE RECEIPTS

 (Fiscal year 1912-13.) Dallas-Gross receipts023.42,
net
revenue $\mathbf{\$ 1 , 0 0 2 , -}$ money order transactions 528,559 amounting to $\$ 7,335,671.45$.
Houston
Gross receipts 552 , Houston-Gross receipts $\$ 552,-$
004.19 money order transactions 004.19 money order transactions
289,72i, amounting to $\$ 5,995,340.16$.
Worth - Gross
receipts Fort
$\$ 377,457.34$.
$\$ 3$ San Antonio - Gross recelpts
$\$ 354,340.60$.
(Note - Requests for postoffice (Note - Requests for postoffice
daia brought returns from Texas daia brought returns from Texas making it impossible to include some items in a comparative state ment, gross receipts statements excepted.

## SECOND DIVISION

There are four cities in Texas Which had a population of more than 25,000 and less than 50,000 in
1910. To this list Beaumont has
been added, although the census the minimum for the classification.

in sewer figures. FL $^{\text {FL }}$ PASO.

| pulation, 1910 | 39.279 |
| :---: | :---: |
| Area in scuare |  |
| Mlles of strcet rallway | 81.8 |
| Miles of paving. | 68.97 |
| Miles of underground drains |  |
| Miles of water | 78 |
| Acres in par |  |
| Assessed |  |
| City bonde | 0 |
| ty tax rate | 1.88 |
| Fuilding permits (year en <br> ing Sept. 30). | 1.572, 120.00 |

Fullang perm
ing Sep.
G
G
waco-Continued
 Postorrico recelpts iniscai
year 1912-13). Year 1912-13). 162.714 am. mud shell and graveled atreet:)

EXPRESS COMPANIES. There are four express compe Texas rallroads. The Wells-Farg stands ralroads. in mileage in t State, operating 10,500 miles. American is second in milea and the United States and Adam companies follow with 1,203 708 miles, respectively. These to companies own property in the mission at $\$ 635,000$ and employ
$3,300 \mathrm{men}$. whom they pay $\$ 1,500$, 00 in salaries annually. The e pense of operating these compa nd their $\$ 4,173,000$. Industrial Texas.

SAYINGS OF CONFUCIUS. It is because men are prons be partial toward those they lo servile toward those above then harsh or overindulgent to those purcirty and distress that it is xercising a sound judgment wit riccising a sound judgment wi There are five good principles of action to be adopted: To benet
others without being lavish, encourage others without bein harsh, to add to our resource Without being covetous, to be dig, nified without being supercilious austere.
He who is incapable of regulat capable of ruling a nation.-Ch nese Annual.
Paper can be manufactured o of a lmost anything that can by of bark are said to be used. al banana skins, bean stalks, sialks. cocoanut fiber, straw, se f grass are all applicable. It $h$ also been made from halr. vool and from asbestos, which fur
nishes an article indestructible b fire. Leaves make a good, stroni paper, while the husks and stem
of Indian corn have been tried.

Prior to 1870 cotton seed wa
practically worthiess Texas produces about $\$ 34,000,00$ the figures in 1909 being $\$ 29$, 916,000.

## TRANSPORTATION IN TEXAS

## BY STEAM AND ELECTRICITY

The question of transportation is of equal interest to both producers and consumers. In many respects Texas has kept pace with other States in the Union in successful effort to solve the problems growing out of the demand for a lewer ccst in transporting the products of the farm, mine, forest and factors to the heras, however, forbids a complete solution la any single generation. Texas, however, is making progress gon in rallroad building ments of rivers and harbors and progress will be found in the follo

## INCREASE IN TEXAS MILEAGE

The rallroads serving Texas are apidy adding to their mileage service as conditions justify. They ment, and as a rule build into undeveloped sections, trusting to the
future to provide tonnage to pay interest on bonds and dividends on During the fiscal year ending June 30,1913 , Texas railroad mileJe was increased 342.69 miles. cany projects are now in the of construction and millions of acres of virgin soil will be added to the improved farm acre-
ge because of improved transportge because of ncrease will give Texas 20,000
miles of main line railroad in 1920.
Main Line Mileage, 1013
The following is the main line 0. 1913, excluding terminal belt
nes.
Companies
Aransas Harbor Terminal Rall Abllene and Southern Railw company …….............. Abliene and Northern Railway Arempany
Alesian Ben
Anealina
Angevina a
Bartitt W
Boalumont
Railmont and Great Northern Beaumont. Company............... cegumont why Cornpany. Te....... torr s Ferry Browndel and Ches 3rownwod North and South Rail
way Company railway Compang Interurba cano Bolt Reilroad Company.... Rlicago Rock Island and Gulf

 ern Ralilway Company Southwest Denison, Bonham and Ni.....or

Railroad mileage-Continved. Caris and Mount Pleasant Rail- M Pecos and Northern Toxas Rail. Pay Company.................
Pecos RVver Raliroa compan Southern Railway Cort Bony ivar Iron ore Railway Qumpany Acme and Pacific Räil.
 Ray Company. Roscoe, Snvary and Päcific RäaiSt. Way Company. st. Loulis, San Francisco......
 Company of Texas....... $\mathbf{Y}$ äss Ran Antonio. Uvalde and Guil Raliroad Company Ma.... Val. San Benito and Rio Grande Railo Company.........
ley
shreveport. Houston and Railrood Company Rainay Com.

 Texas Railway Company......
Sugarland Railway Company
Texarkana and Fort Smlth Rail:


 Texas Central Termint1 Company..
Texas Mextcan Railway Company

 Timpson and Henderzon Rallway
Crinity and brazos Vailey Rail: Trinty Company. $\begin{gathered}\text { malley and Northern Maii } \\ \text { way }\end{gathered}$ Triny
Company
Valley Southern Railioad Company Weatherford. Mineral welis and Weatherford. Mineral Wells and
Northwetern Railway Company
Wichita Falls Railway Company Northwestern Railway Company
Wichita Falls Railway Company
Wichita Falls and Northwestern Richita Falls and Northwestern
Wichita Falls and Oexas... Wailwav Company...........ii-
 Rallway Company of Texas.
Wichite Valley Railway Company
Wichita Valley Railroad Company
Total main line mileago..... $\overline{15,283.53}$

 tion" the rallroads pay taxes rents for
lease of road rents for joint factitites
debits for hire of equipment. interest on
 outside operation, miscellaneous rents and
other unspecified deductions. The above anumeration does, not include "aditions
and betterments," which must be pro-
Hided for. and better.


INTERURBANS AND
STREET RAILWAYS
Activity in interurban railway construction was marked during the year 1913, the new into service nearly equaling the new mileage for steam lines. During the year several new electric lines were completed and work on others far enough advanced to operation and a 1913 classification.
INTERURBANS IN OPERATION. (Electric Power.)
Northern Texas Traction Co.-
Miles.
85

Fort Worth Southern Traction Co.(Stone \& Webster Manage...
alveston-Houston Electric Co. Galveston-Houston Electric (Stone to Wouston. We.............. Jefrerson County Traction co.
Beamont tion Porte Arthur.......... (Stone \& Webster Arthur.......... Mana.
Rio Grande Valley Traction Co.-


Southern Traction Co.-
Southern Tractlon Co. Management.
Dallas to Waco.........................
(J. F. Strickland Manage
Eastern Paras Trantion Co.-.
Dallas to Greenville.

Dallas to Greenville.
Southwestern Traction
Temple to
outhwestern Tractio
Temple to Belton.
Other LInem in Operation (Gasoline Power.)
Bryan to College Station....
San Bento and Rio Grande-.......
San Benito to Mission and Monte
Christo........................$~$
Anna-Blue Ridge-Gieen $11 l e-~$
Totals.
Total mileage of interurbank, elec-
tric and other power.
at the close of 1913.
Note-The Rivera Beach and Westen
San Benito and Rio Grande and the Ann

Electric Lines Contemplated. Charters have been companic other companies are being form and companies with lines now
operation have announced exte operation have announced ex ar and sions. Several new interurbans ${ }^{\text {and }}$ almost po
The Stone \& ${ }^{\text {D }}$ Webstell. ment Association have announc an interurban railroad from Dalls mo Terrell, a distance of thirt mines. With the completion of th probable that it will be extende
car east as Tyler.
Dallas-Cleburne-Gien Rone.
Articles of incorporation hat ben approved for the constructic Gf an electric cleburne, a distan of seventy-five miles.

Dallam to Denton.
A company has been organizy to construct an electric line fro Dallas to Denton, a distance thirty-tive miles. Franchises in bo cities. This line will be extend to Gainesville,

Austin to San Antonio. An interurban from Austin to San Antonio via Lockhart and Seguin. The have been acquired nearly the entire route. This line Will be approximately 110

Waco-Testern Traction Company is contemplating a line from Temple to waco and from remple via Beltin, over the a through line from Waco to Austin, a distance of 100 miles.

Houston-Wreeport.
An electric line has been announced for Houston and Freeport miles.

Sherman-Gainesville. An interurban road is being pro
moted to connect Sherman and Gainesville via Whitesboro, a dis
tance of approximately thirty-five tance o
miles.
miles. Worth-Mineral Wells.
Fort Worth-Mineral welis. promoted, but not chartered. It is believed that action will be taken during 1914 .
FXTL:XSIONS OF INTERURBANS. The Eastern Texas Traction Company has announced projectgreenville line, upon its completion. Extensions will be constructed from Greenville to BonCooper and Clarksville, with a Cooper and Cla

Bryan-College Station.
The line is being extended south o points in the Brazos River Val This San Benito-Rio Grande. This line is being extended southeast to Point Isabel. It tra verses the irrigated sections of the
valley and will approximate a valley and will approximate ${ }^{\text {a }}$ mileage of 125 when completed. Passengers are carried in motor ars, freight by steam
Anna-Bline Ridge-Greenvilie. The line has been surveyed to Wrill be approximately forty miles
in length. The total mileage of profected The total mileage of projected approximates 720
Dallas is the chief interurban center of Texas, having in operation five electric lines of a total
mileage of 287 miles with three mileage of 287 miles, with three
ines proposed for which compales proposed for which compa-
have been organized and harters taken out. The proposed
lines will have a mileage of
A union interurban terminal sta Hon costing a milifon and a half lilars will bo constracted in Dal-
las in the near future. The site has already been purchased

TITY STREET RAILWVASS. Thirty-six cities of Texas enjoy modern street railway service, the
total length of all lines in service total length of all lines in service
being 550.1 miles.

## City of Dallias.

Dallas Consolidated Electric Street ${ }^{\text {Miles. }}$
 pany
Northern Texas Traction Company
11.5 (Stone \& Webster Management.)
Independent
2.0

Total ............................ $\overline{77.5}$
Houston Electric of Houstom.

City of Fort Worth
City of Fort Worth.
Northern Texas Traction Company.;
(Stone \& Webster Management.; Clity of E1 Paso.
El Paso Electry of Rall Paso. Company 31.9
Clity of Galveston.
Galveston Electric Company........)
(Stone \& Webster Managenent.) City of Beammont.
Eeaumont Traction Company....... 12.0 San Aatonio Traction Conpany.... 7.0 Clty of Waco.
Southern Tration Company............
(J. F. Stickland Managernent.) Austin Electric Company............ 20.4


Mitsumata paper, made from the stems of a smauntains of Japan,
grows in the mountan
is impervious to water and is therefore invaluable when made plant is said to thrive in some mounta


## ACTIVE INTEREST IN THE

## IMPROVEMENT OF HIGHWAY

Bringing the farm nearer to the market by constructing public his ways for use during all seasons of the year is a work occupying attention of many thousands of Texas citizens in every section of State. The progress made in constructing good roads since 1909 ches a and fame lines in States in the Union

## MILLIONS OF DOLLARS

OF DOLLARS ROILDING
Texas counties spend $\$ 5,000,000$ annually in highoray improvement,
 from other sources, contributions and free labor. Of the amount the regular tax and approximatciy $\$ 1,100,000$ from special taxes. Sixtythree counties of the State collec a special road tax.
During the first eight months bonds to the amount of $\$ 4,35 n, 040$ were voted in various Texas coun ties, precincts and road the previous four years bonds to the amount of $\$ 11,332,000$ were voted, making a total of $\$ 1.5$,
682,000 for good roals in less thin 682,000 for good roals in less thad
five years. During the same period nearly $\$ 2,000,000$ in bonds were voted

Publie Highway Mileage.
Publie Highway Milieage,
The miles of pubic highway in The miles of public highway in which, if placed end to end would encircle the globe at the eqnator nearly seven times. Of thi either well graded or in sections of the State where roads are nat urally good and serviceable during most months of the year. of more, there are 9, 768 . while th ire are approximately 25.000 miles (in-
cluded in the 40,000 previously cluded in the 40.00 prevk and money is expended annually with good results.

## Interest is statewide.

Interest in the good roads movement is Statewide. Seventy three counties. or precincts there of hearly $\$ 16.000 .000$ during the last four years and a half. Stixty which have issued bonds. assess a special tax for road wort. These facts in themselves indicate the extent of the movement, but the most interesting fay construction in Texas is not found in figures.
preciated in many counties
bonds have not been issued Where no special tax is collect Almanac from every county in State call attention, in many tances, to large contributions road work. Merchants and f ers are co-operating in the of constructing maintain ood highways.
The The Split Log Log Drag. orms of drags are being effecti $y$ used in many counties. Ma ounties own their own teams a oad machinery and by proped supervising the work are keept, and constructing many miles permanent road without resort egular tax. In some count convicts are employed effective Sand-Clay Roadm.
Many miles of smooth, relial onstructed in East Texas and ther sections where sand and cl are available, by the prope mixing of the two materials sraded and drained. Sand-cl roads, when properly construct are classed among the best for dvantage of being comparativ dvantage o
In the coast country of In the coast country of Tey mud sheng. In many other sectio limerock, granite or other grad of stone ror surfacing are conve are counties where much are countles where much ro to transport their material ma miles by rail.
The The Cost of of Highways. exas varies according to locat and class. In many counties grading of roads is inexpenss along the right of way or at convenient distance. In other se ions grading is experive, drat
transported many miles. Good trans have been constructed for
roads
less than $\$ 200$ per mile, but there less than $\$ 00$ of mile, but there are hwas in Texas that have cost high $\$ 1,000$ to $\$ 6,000$ per mile.
from the following statistics t In the following statistics the good road mileage set opposite the
name of each county cost $\$ 40 \mathrm{n}$ per nile and upward. Many counties
reported good roads costing less. reported good roads costing less. honds voted, but not sold. A large mileage of paved highway will be added to the present total when ther money on hand is devoted to otherway construction.
TEKAS HIGHWVAY STATISTICS.

| Oounty- |  |  |  | \#8 |
| :---: | :---: | :---: | :---: | :---: |
| Ander: | 150 |  | 150.0 | . 15 |
| Aransas | 6 |  |  |  |
| Atascosa |  | \$ 20,000 |  |  |
| Austin | 167 |  | 175.000 |  |
| mior | 150 |  | 100.009 |  |
| It | ${ }^{78}$ | 200,000 |  |  |
| Bexar | 6 |  |  |  |
| Bo | 45 |  | 250,000 |  |
| Br |  | 500,000 |  | 5 |
| S | 85 |  |  |  |
| Burleson |  |  |  | .is |
| Cathoun | 1290 | 100.000 |  |  |
| Cameron | 74 | 20.000 |  |  |
| Camp | cold |  |  |  |
| Cass | 19 | 100,000 | 20,000 |  |
| Cherokee | 20 |  |  |  |
| Childress | 31 |  |  | 15 |
| Coke |  |  |  | 15 |
| Colorado | 35 |  |  |  |
| Comanc | ig |  |  |  |
| Conke | 621 |  | 100.000 |  |
| Dallam | 3 |  |  | 6 |
| Dallas | 479 |  | 1,100.000 |  |
| Denton | 4 |  | 75,006 |  |
| Dickens |  |  |  | 5 |
| ${ }_{\text {El }}^{\text {Elis }}$ Paso | ${ }_{168}^{312}$ | 3500 |  | .. |
| Erath | 69 |  |  | is |
| Frio | 420 |  | 80.000 | 15 |
| Galvesto | 1101 |  | 50,000 |  |
| Gillespie | 11:5 |  |  |  |
| Gorzales | 180 |  | isto |  |
| Grassen |  |  | 650.0 |  |
| Grege | 60 |  | 100.000 |  |
| Gund |  |  | ${ }_{5}^{50} 5$ | . 15 |
| Familion | 23 |  |  | 15 |
| Haruib | 107 |  |  |  |
| Hartis |  | 1,000 | 500,000 |  |
| Hartle | 47. |  |  | . 08 |
| ${ }^{\text {Hays }}$ | 1 |  | 20,000 | 15 |
| ${ }^{\text {He}}$ |  |  |  |  |
| Houston | ${ }^{150}$ |  | 174,000 | i3 |
| $\begin{aligned} & \text { Bo } \\ & \text { Irí } \end{aligned}$ |  |  |  |  |

Texas Highway Statisticm-Cont.


Bridge bonds voted and sold during the period mentionsd amount to $\$ 1.548,944$, making a
total of $\$ 17,230,944$ for roads and total of $\$ 17,230,944$ for roads and bridges, excluside other sources, during the cour and
1,1913 .

## PORTS, HARBORS, RIVERS

The Gulf Coast line of Texas extends in the form of a crescent in southwesterly direstion from the Louisiana border to the mouth of $t$ Rio Grande, a distance of $3 i 5$ miles (not including indentures). The cos is indented by numerous large and small bays, generally shallow, protected by long, low gation, but furnish protection for harbors which are easily provided the construction of jetties and by dredging. Texas now has four dee water harbors, which are saving in lower ireight rates more the $\$ 30,000,000$ annually to a vast producing section of the United states.

## DEIEP WATER PORTS

ON THE TEXAS COAST
The industrial development of The industrial development of United States lying west of the Mississippi River and east of the Kocky Mountains has made of deep water ports along the Texas coast. The completion of the Panama Canal win unde the need further improvements at these ports and provanly the establishment of others. The combined coastwise business of the ports of the first class now existing is
valued at more than $\$ 1,000,000,000$ valued at
annually.

THE PORT OF GALVESTON.
The port of Galveston officially includes Texas City and Port Boliton, San Antonio and Dallas as ports of entry in the Galveston customs district. Texas City and Port Bolivar are logically a part of the port of these points enter the bay through the same channel and handle cargo to and from the same
territory. The statistics for both territory. The statistics $\begin{aligned} & \text { points are officially included with }\end{aligned}$ those of Galveston.
Galveston is situated upon an island connected with the mainland by a concrete cause of rails carrying steam propelled trains enter the port direct, these lines are used of several other roads and connection with 75,000 miles of railroad serving the greatest sur-
plus producing section of the plus pr
country.

Galveston Water Frontage. Galveston has an improved water in crescent shape on the bay side of the island are modern docks ninety large vessels at one time. These docks are equipped with modern fireproof warehouses of Immense

AND WATERWAYS OF TEXA
36 bales during the last fiscal 936 bales during the last fiscal quantities of wheat and corn, cotton seed mear, packing house products. ressels entered and cleared, having During the same period $7,261 \mathrm{im}$ During the sarred the port and 1,726 persons departed for foreign ports.

Government Expenditures. In constructing and maintaining tary channels the United States (invernment has expended approximatel or maintenance and improvements, the money thus spent provng to for the people of the great territory served.

## TEXAS CITY.

 Texas City, a part of the portof Galveston, is located on the main land six miles west by north
of the Galveston wharves. Its deep of the Galveston wharves. Its deep
water connection is by way of a water connection is by way of a
channel which joins the Galveston channel in Bolivar roads. The present channel is twenty-five feet deep, but an appropriation has a dike to prevent shoaling and for giving a thirty-foot depth. Texas City is equipped with harr space for the handling of measures 5,700 feet. Its waremeases are fireproof and of great apacity and are equipped with ischarging vessels. There are hirty-five miles of terminal raiload tracks and commodious terminal warehouses. The improverepresents an investment approximating $\$ 5,000,000$. A terminal rail-
road connects with all lines servroad connects
ing Galveston.

Texas Clty Commerce. cludes Port Bolivar and Tex New York in the value the oreign commerce, exporting of modities valued at $\$ 281,457.858$ ing the fiscal year ending June? 1913, and importing merchandi alone exceeded the value of $t$ combined foreign business of Pacific ports. Compared with $t$ eading ports of the country
Ports.
Foreign
Businesa
New Ports-
New York
New Or
Boston
$1,966.226,6$
289.278 .4
252.379 .8
Galveston is the greatest cott exporting port in the world, ha ported to foreign countries 3,87
veston. It is served by the Gulf and Interstate Railway (Santa Fe) and exports large quantities of sists of a large and modern dock for handling iron ores. shipments of East Texas iron for Pittsburg going by the way of Port Bolivar and concentration space. Other cargo is handled. Business han died at Port Bolivar during the 185.

PORT OF FREEPPORT.解 Brazos River, has joined the ranks of deep water ports of Texas.
Ocean steamers are making regu lar calls in the coastwise trade. movement is on foot to secure a uniform depth of twenty-five feet of water across the bar to Freedeveloped, and other industries ar giving this new port considerable prominence.
Freeport is now in the Galveston istrict.
PORT OF PORT ARTHUR Port Arthur, a growing and imwith the development of Southern waterways during the last year miles from the bar at Sabine hass it is the natural gateway for a large volume of the lumber and oil business of the State. During 30,1913 , there was recorded a gain of $\$ 6,629,555$ in exports over the business handled the year previous.
Exports from Port Arthur conon mainly of grain, sulphur, cotrice, timber and cake, cotton and oil products and miscellaneous general cargo. Imports were mainThe total ageneral merchandise ast fiscal year were $\$ 25,254.482$ mports, $\$ 2.884 .104$; coastwise busi ness. $\$ 21,465,000$; total commerce $\$ 49.003 .586$
The turning basin is located
twelve and three-fourths miles rom the bar at Sabine Pass. The main ship canal is 7.2 miles long mprovements thus far have cos the Government $\$ 2,500,000$. When width of 270 reet at the top and 150 feet at the bottom, with a minimum depth of twenty-seven feet An additional appropriation of
$\$ 1.500 .000$ for jetties has been expended.
The Kansas City Southern and outhern Pacific Railways have pent large sums of money in dock pacilities at Port Arthur and Sasiderable commerce.

PORT OF ARANSAS PASS. A new deep water port is being constructed at Aransas Pass and of the pass was made in May, 1913 . and shows a navigable depth of channel of 20.6 feet, with a widt extending from. deep water in the gulf to the Corpus Christi channel Island. The narrowest part of the twenty-foot channel is 1,700 feet inside to outer end of the north jetty. The maximum depth that at the end of the fiscal year is twenty feet, the same as last report, but the navigable channel ing the year. Under authority of rivers and harbors act of March 4 , specifications are being prepared and for dredging to a depth of twenty-five feet. total cost of Work during fiscal year was $\$ 11$,${ }^{322.21 .}$. Commercial statistics show: Totraffic, fuel, oil, cotton, etc., 42,800 tons, $\$ 702,945$.
Harbor Island.
Dredging operations Dredging operations under a
contract entered into August, 1911,
and completed in October, 1912, removed a total of 501,280 cubic front at Harbor Island, near Aransas Pass. The total cost of this
 are being prepared for extension ing a portion of this harbor to in the rivers and harbors act of March, 1913.

## MMPROVING INIIAND

The Federal Government has ecognized the importance of the nland waterways along the Gul of importance, improving and inreasing dimensions as commerce Justifies. Each Congress appropriates many hundreds of thouTexas.
THE HOUSTON SHIP CHANNFK. 000 supplemented by a $\$ 1,250$, amount furnished by the Harris County navigation district. is beng expended to secure for the city for ocean-going ships.
The ship channel extending up through Galveston Bay and Bufdeepened to a ruling project depth of twenty-five feet from Galveston Bay to the head of Long Beach near Hou
seen rapid progress in the work five dr
gaged.
The. The report of the United State ergineers of the district, made on jows: Division No. 1 , a depth o $81 / 2$ feet: division No. 2, 9 feet
division No. 2 and part of 3,1 division No. 2 and part of 3 , 14 basin to foot of Main street. 6 feet Portions of the canal show twen. ty-four feet deep, considerable of the work of the last year and redredging silted portions. Commercial statistics for show: American steam tugs an show: American steam tugs an traffic valued at $\$ 35,938,800$.

BEAUMONT AND ORANGE. Beaumont and Orange, occupy ing positions of strategical impor merce of the Southwe to the com promise of becoming deep wate ports within a short time. Beau mont, on the Neches River, firt miles from Sabine Pass, is one o
the growing cities and lumber cen the growing cities and lumber cen on the Sabine River, thirty-two
miles from Sabine bar, is also miles from Sabine bar, is also
city of importance in Texas com merce.
ederal aid in the developmen been obtained the connection ha obtain a channel project being t deep from Port Arthur ship can to the cities of Beaumont Orange, with a Width of ninety from the Port Arthur ship cana to the mouth of the Neches Riv eighty feet from the mouth of Neches River to mouth of the bine River, and 150 feet in the op canal and turning basins at th towns named at a cost of $\$ 1,143$, 000. This conditioned that one and Orange navigation districts, The conditions of the Governmen the district in voting a bond issu to cover the expenditure.

INTERCOASTAL CANAI. An inland waterway through the through the land where necessar and extending from the mouth 0 the fio Grance to the mississip a similar waterway along the ea Gulf Coast to another light dra and protected channel along been advocated many years, one which has received the propriations to make a part of canal a reality.

THE CANAL IN TEXAS. puring 1913 the intercoastal caGalveston to Corpus Christi, this section now being in use by light draft vessels requiring not more ection which will probably claim the attention of the engineers lies
between Galveston and Port Arhur. Considerable inland dredging will be required to complete the work as far as the Lonsiana History of the Canal.
Tiver section was started on May 22, 1911, at the Brazos River end y the Metropolitan Contracting Credgany of to be done by the suction dredge Velasco. Work on the Matagorda end of the waterway Was started Sept. 6, 1911, throughpany with their sixteen-inch suction dredge Matagorda. The dredgng done covered a distance o rnment contract work was to have been finished Jan. 7, 1913, but an extension of the contract Ths granted to June, 1913. The finishing of this section of of two years and twenty-six days in which the work was finally
completed. Approximately 2,167 ,000 cublc yards were excavated in he construction, for which the overnment paid an average price 10 c per yard, bringing the cost
this forty-five miles up to $\$ 216,-$
The canal as completed from latagorda Bay to Galveston, inmprovements made on the Brazos mprovements made on the Brazos
River and Galveston Canal, which was dug before the war by a pri
vate corporation and afterward ate corporation and afterward
urchased by the United States Government, gives a waterway six Government, gives a waterway six
let in depth with a minimum
lepth of five feet of water at lepth of five feet of water at
nean low tide, with an average nean low tide, with an average
vidth of seventy-five feet. Every autical mile, or 6,000 feet, turning et long and twenty-five feet leet 10
vide.
In th
canal th
In the cost of constructing the anal the amount necessary to contruct the bridges across the waray. In the last section to be 216,700 cost of dredging has been plied to put in bridges.
RANSAS PASS-CORPUS CHRISTI A light draft canal from Aransas forpus to Corpus Christi through onstruction. At the last survey dredging the minimumpletion
will rule ten feet. The citizens of Corpus Christi have provided the proposed bulkhead for holding
material taken from the turning material taken from the turning Commercial statist
tonnage of 8,150 for the channel and a freight traffic of oil, cotton etc., of 42,672 tons, valued at $\$ 698$, eventually secure a deep water channel, as does Rockport, which lies a few miles east of Aransas Pass channel.
ARANSAS PASS-PASS CAVALILO. material has been removed from material has been removed from to fifty feet wide and of a ruling
depth of five feet. The commercial depth of five feet. The commercial
record shows sixty-four vessels and a freight sixty-four vessels tons, valued at $\$ 52,160$, during a period of twelve months through
this section of the channel.
GALVESTON BAY CHANNELS. Light draft channels are maintained from Galveston to points at the mouth of the Trinity River,
Anahuac and various other points in Galveston, Chambers and Harris Counties. The commerce is composed of merchandise, agricultural and mud shell, amounting to several hundred thousand dollars annually.
Snagboat Trinity Worked one day removing snags at cost of $\$ 1,014.25$, including moving dredge, etc. Ruling depth, 5.1 feet. 500, with 90,700 tons, freight traffic amounted to 94,073 tons, valued
at $\$ 12,285$, principally general
merchandise.

Month of Trinity.
No work during the year; depth 4.7 feet, with greater part of channel over five feet. Appropriations
$\$ 90,626.57$. Statistic 4,005, passen 1912-Vessels 34, tons 4,005, passengers 500 , commercial at $\$ 325,600$. Turtle Bayou.
The snagboat Trinity worked on this project from Dec. 14 to Dec. 31, 1912 Removed snags and sunken objects in river. Ruling feet with general shoaling entire Comgth. Appropriations $\$ 14,000$. Commercial statistics: Steam and 720; freight traffic, general merchandise principally, 11,117 tons,
valued at $\$ 208,305$ for year 1912 .
Only work was removal of a sunken barge from channel six miles from mouth; paid for with special appropriation. Ruling depth
4.2 feet. Statistics: Twenty-eight
steam vessels and barges with 162 ons, valued at $\$ 946,981$; principally general merchandise, farm on products

TRINITY RIVERIMPROVEMENTS Work is progressing in canaliz ng the Trinity from Dallas to Gal upper reaches of the river is small the high banks and other natura onditions make it an ideal stream possible light draft navigation. Locks and Dams Completed.
Four dams and three locks hav Four dams and three loc
been completed as follows:
Lock and dam No. 1 at McComas Bluff, thirteen miles below Dallas: dam at Parsons Slough, twentywo miles below Dallas; lock and and lock and dam No. 6, 1ocat d forty-two miles below Dallas Under Construction.
Locks and dams under construcion are as follows:
No. 2, located twenty-three miles below Dallas; No. 7, located forty hine miles below Dallas; at Hurricane Shoals, 243 miles below Dal miles below Dallas.
An accurate survey of Trinity River from its mouth to Dallas was provided for by an act ? Was provided for by June 25,1912 at an estimated cost of $\$ 100,000$ The State Levee and Drainage the work.

Government Expenditures.
The Federal Government has expended $\$ 1,534,133$ in connection wavigable. The amount expended during the fiscal year ending June 30 , 1913 , was $\$ 388.441$. The rive and harbor act of March $4,1913$. to continue the work.
BRAZOS RIVER IMPROVEMENTS The Federal Government is imview of providing light draft navi gation from its mouth to Waco This is being done by dredging and by th

Mouth of the Brazos.
Repairs to the jetties, damaged in 1909, were finished in August. 1912, at a cost of $\$ 11,834$. The ruling depth of the channel wa $\$ 200,000$ was appropriated by Con gress to purchase a hopper dredze
for this part of the work, one-half for this part of the work, one-hay ments at Aransas pass, at whic point the dredge will divide time
An effort is being made to secure RASER
a depth of twenty-five feet at
mouth of the river and north Freeport.

To Matagorda Bay.
A channel is being construm and maintained from the mouth Bay. The channel was comple west to Clear Lake, a distance 87,329 feet, at a cost of $\$ 126$,
This includes some work wit the mouth of the river. The tire channel is now complete a ruling depth of five feet. movement of 123,750 short ton merchandise, valued at $\$ 553$, for the last fiscal year

Velasco to Washington. A large amount of work
done in 1913 in snagging and ting overhanging trees. The t cost for the year, including ${ }_{452}$ purchas
Washington to Waco. The work during the year sisted principally in maintain and preserving work previon new locks and dams. An im tant feature of the year was assembling of the plant for lo of its construction. Prelimina work for the selection of sites two other locks and dams was fi
ished. Government expenditur for the fiscal year amounted
$\$ 195.820$ on this section of $\$ 195,82$
river.

OTHER WATERWAYS. Sulphor Riyer, Texas and Arkanm The project is to maintain navigable channel in the first 1 miles above Red River by reals, stumps, logs and o obstructions. No dimensions Red River, Louisiana and Ark The present project is to remo drift and snags from the wate way to clear the banks of dange
ous timber and to close chutes a cut-offs where necessary, a propriations may from time to be made by law. River and ha
bor act of July 25 , 1912 , Holl Document 71, Sixty-First Congre first session. This project al provides for fombined dredging and sna boat and one pile driver to $t$ existing plant and estimates cost of the new plant, including perations plant for the first year. isting plant for the first year,
$\$ 100,000$, for operation of the pla the second year $\$ 60.000$ and
Cypress Bayou, Texas and Lou
The project is to maintain navigable channel from Jeffersa
Tex., to Shreveport, La., by way Tex., to Shreveport, La., by way
raters, by removal of shoals,
stumps' logs and other obstruc$s$ tions. The average annual cost is
$\$ \overline{5}, 000$. The river and harbor act of June The river and harbor act of June
1910 , appropriated $\$ 100,000$ for , construction of a dam without lock across the foot of Caddo ort published in House Document ort pixtieth Congress, first ses-

## Johnsons Bayou, Louisiana.

The project is to maintain a hannel across the bar in Sabine appropriations may from time appropre made. The last work ave a depth of seven feet and

## AVIGATION PROJECTS

OF TEXAS RIVERS -
Previous to railroad construction
any of the larger streams of exas were important highways of
ommerce. Railroads reduced the mparent usefulness of the rivers nd lack of use permitted shoals nd drifts to form. The desire for wer freight rates has again cenred attention on

## Trinity and Brazos.

The Trinity River drains an area 17,700 square miles. Its length 41 miles. Light draft navigaberty. The Brazos River, the gest stream in the state, is 950
les long and drains 36,763 square
les.
For
Fin
For data concerning the imtion purposes readers are re

purposes readers are re-
to other pages in this sec-
Rio Grande.
he Rio Grande is a border eam draining an area of 22,981 . measuring its entire course ough New Mexico. Much of its er is used for irrigation, but $r$ its mouth. Being a border made for its improvement
made for its improve
Guadalupe River.
ht draft napigation with a
ing depth of four feet as far
ch people of that a project in are very
ch interested. This stream is
is susceptible of improvement.
Guadalupe is 289 miles long es.

Colorado River.
he Colorado River is. 605 miles
and drains an area of 45,400
square miles. Considerable inter est in its improvement for navigacion purposes is manifested by the reaches, but although Government engineers have inspected it on everal occasions nothing definite concerning its probable improveannounced.
The Neceches River.
utaries at the higher with its tribhavigable fully 400 miles from sabine Lake and is one of the most
extensively used streams in Texas. The river is connected with deep bine-Neches art Arthur by the Saand 100 enes Canal, ten feet deep mont, fifty miles from Sabine Pass. there is a depth of fifteen to Beaumpont fieet. Steamers now run to Beaumont through the SabineRiver. In high water steamboats and gas up the launches tow barges mont as Rockland, a distance of about 175 miles. and up the Angelina River, in high water, as far as Patonia, about 400 miles. In low water the Neches is navigable tance of twenty-eight miles above Beaumont. Pine Island Bayou, which flows into the Neches anout navigable at all times as far as foth, twelve miles from the conboats drawing not more than for feet. The Neches miver is 258 miles long and drains an area of 11,725 square miles

## Sabine River

The Sabine River, like the Neches, is connected with the Sa-bine-Neches Canal, affording a
minimum depth of ten feet tween Port Arthur and Orange Orange is located thirty-two mile navigable north of Orange river is up as Neblett's Bluff and to the foot of the Narrows, twenty miles north of Orange, but frequently in time of high water barges are points 200 miles to Orange from Bayou, a small stream emptying a few miles up and is extensively used, likewise Black's extensively the Louisiana side of the river, and ohnson's Bayou, which empties
into the lake. The Sabine River is 368 miles long and drains an area of 13,826 square miles.

## REORGANIZATION OF

U. S. CUSTOMIS DISTRIC'S:

In the reorganization of United In the reorganization of United
States customs districts in
the number of districts were reDistricts.

 Sabin

Port
Dagle Pa
Boauillas
Del Rio
Presidio
Presidio
El Paso
El Paso
Columbus, N. M. M.
Galveston, including Texas
City and Port Bolivar City an
Houston
San Antonio
Port Lavaca
Port Lavac
Laredo
Brownsville
Corpus Christ
Rio
Roma
Ranta Maria
Port Arthur
Port Ar

## Port Statistice.

Export and import statistics for the arse are given in another part oi bine section. Similar statistics for bcrder ports for the last
follow; District

Hxports. Imports.
BrownsvilleLaredo (Christi) ... 1,876,450 13,444,688 ${ }^{\mathbf{E n}}{ }_{(1 \text { Paso }}^{\text {(Paso }}$ del Norte)...3,704,062 $\quad 3,867,954$ Eagle Pass-.......4,526,065 3,496,812

## THE PANAMA CANAL

AND TEXAS PORTS
All Gulf ports of the United States look forward to the date of completion of the Panama Canal
as the beginning of a new era of as the beginning of a new era of ened route to Japan, China, the Philippine Islands and other lands of the great hast; new opportun coast of South America and coastwise trade between the Atlantic, Gulf and Pacific ports wil provide opporturts at lower rates than was prossible over the all-water route via Cape Horn or by rail and water.

Via Texas Ports.
Texas and Texas ports will undoubtedly profit in this great Texas cotton will find its way to the East via Gulf ports and the will be exchanged for South American products. The products of China, Japan and other eastern countries will move to Texas and
other American States via the canal.
canal is reasonable to believe that the portg of Texas will handle a
large portion of the commerce cre-
ated by the canal or divert belief is based on the fact Texas ports are conveniently cated as to distance, the dis to Colon; upon the adequate ties for handling cargoes and ritory served by Texas ports duces a surplus of commodities demand in countries reached vessels going via the canal and
a growing consumer of foret goods.

Panama Canal Facts. A canal across the now practically a real has been in the minds of navie tors and others interested in merce almost since Ame the maping of the American nents. It was suggested as as the fifteenth century, but until the nineteenth century surveys madity of a canal was discussed investigations made. In 1849 g veys of the Nicaragua route made and since that date this ros times.

First Efforts Via Isthmuas
In 1879 the Panama Canal C many was formed, with $M$ de $I$ seps at its head, and estima seps at its head, and fixing the cost of the ente prise at $\$ 169,000,000$. Plans, ho ever, were changed to a lock a dam canal, but after the expen ture of $\$$
Uhited Statem Becomes Intere United $S$ tates quickened during Sanish-American war and in 1 erests to the United States $\$ 40,000,000$. In 1903 a treaty tween the United States and d bimbia Congress refused to ratify Then Congress reinsed the establishment the Republic of Panama, which country a favorable tres started, and already the waters the Atlantic and Pacific have be oined. Beiore the expira will carrying interocean commerce a early in 1915 the last detail in construction will have been
pleted.

Desseliption of Canal.
by means of locks and dams elevation of eighty-fiva feet passing through the canal. of these locks are located at Gat Pedro Miguel, on the Pacific sl Each lock hes a usabie length Gatun to Pedro Miguel, is thir
one and a half miles. The water on thill in the dam at Gatun. The fatun lake at this level has an arca of 164.2 by means of dams, which retains the waters of the Chagres River and other streams hus furnish water for elevation of eighty-two to cighty-seven feet.

Distance and Dimensions. The canal from shore to shore is 40.5 miles in length; from deep water Entering the canal is firty atlantic side a vessel will pass Atlantic side annel 500 feet wide for a distance of seven miles to Gatun locks, which are six-tenths of a mile long. Here the ship will be elevated a dhe sevel of the water in Gatun Lake. Then for sixteen miles the channel will be 1,000 feet wide to San Pablo. The next
3.8 miles the channel will be 800 3.8 miles the channel wind be then for 3.7 miles 500 fett wide and for 8,2 miles 300 feet
wide. Here the Pedro Miguel locks wide. Here the Pedro Miguel locks
are entered, where the vessel will are lowered a distance of fifty-fiv feet to Miraflores Lake, through Which the channel is 500 feet wid to the Mirl be dropped to tide level of the Pacific and proceed to sea a distance of eight miles through The canal will have a minimum epth of forty-one feet.
Cost to the United States.
The French company expended $\$ 260,000,000$ on the canal, partially completing twelve miles of the easiest
$78.146,860$ cubic section, excavating $29,908,000$ of which benefited that present canal. In addition to thi the United States has excavated ing the extra work caused by earth Inclu
Including the $\$ 40,000,000$ pald to the French company for thei United States the sum of $\$ 375,000$ ministration, franchises, clvil administration, franchises, etc., the
cost will exceed $\$ 400,000,000$.

## NEW YORK THE GREATEST

 SEAPORT.New York City is now the greatst seaport in the world, measured y the total value of its exports nd imports. For the fiscal year nding June 30, 1913, according to gures collected by the Merchants association of New York City, the ort of New York did a foreign pusiness of nearly two billion dol-
the figures for New York
 that trade has been dull during the past six months, the figures show that the business of the port of 00,000 last year over the record of the year preceding. - Engineering

DISASTERS AT SEA.


- Estimated

The United States Geological Survey reports nineteen commercial minerals produced in Texas, and petroleum is, by far, the mos mportant. The total production ries in 1912 had a vellue of $\$ 20$, 43 per cent of the total value of 43 per cent
the output.

## GEOGRAPHY, GEOLOGY AND

TOPOGRAPHY OF TEXAS
The story of Texas, its history ages ago, as told to geologists by the ock and soil formations, is not only interesting, but of value to student and others who wish to inform themselves concharal conditions su resources of the State and the possibilities which natural cofly explaining gest. The following story is wilt understood by those who are withou these conditions in language easily
THE GEOGRAPHIGAL OF TEXAS (By Alexander Deussen, Inatructo in Geology in the Unive Texas, geographically, consists
four large units. (See Fig. 1.) of four large units. Fig. 1. Re Relief map of Texas. (Photograph of a portion of a relief map of the United Stath, Washeled by Ed. C., and used by' permis siont)
Central Basin, the Plateau Region
and the Trans-Pecos Region. and the Trans-Pecos ingludes the sublevel, seaward-sloping area, in altitude and rugosity toward the
interior. The western margin this plain is formed by the Gran cones hills.
This plain is co-extensive with group of strata or riginally deposited in a horizon (ariginaliy deposition beneath the sea an later elevated into land) which on top of one another much li the leaves of a. book the Gulf great than that of the surface. The pla
is thus formed by the upturne is thus formed by the upturn edges of these several rock shee posited is exposed at the weste margin; along the eastern margi deeply buried. The uppermost and
latest to be formed appears at th


FIGURE I
purface immediately adjacent to the Gulris series of strata is subdivis ible into three groups which differ
from each other greatly in physica from each other greatly in physical of these in turn give rise at the

## surface country

Cretaceous Series
The lowermost series-called the Cretaceous extending through Eagle
of a line exter
Pass, Elmendorf in Bexar Count Pass, Elmendorf in Bexar County
Webberville in Travis County Bai Webbervile Milam County, Com leyvice in Hunt County and Annona
mer Red River County in Red River County. The com ponent rock sheets consist chiefly of lich weather into fertile black clay soils, and form open, treeless
or mesquite covered prairies. This or mat of the Coastal l'lain comprises
part the well-known Black and Grand
Prairies of Texas, north of ColoPrairies of Texas, north of Colo-
rado River, and the interior margin of the so-called Rio Grande
Plain south of the Colorado Plain south of the Colorado. At
the present time these Black Land Prairies constitute the most impor tant agricultural region of Texas

$$
\begin{aligned}
& \text { Abundance of Water } \\
& \text { ese Cretaceous prairies }
\end{aligned}
$$

derlaid by prolific and widespread water-bearing formations which supply many artesian and flowing supply of water for the towns and farms of this subprovince.
area is agriculture and cotton the corn are the leading products. In the northern section wheat and oats are largely cultivated, and in are grown to a considerable extent Intermediate Series.
The intermediate series of strata whlt of country lying to the east
of the Cretaceous prairies and west of the Cretaceous prairies and west
of a line extending from Newton of a line extending from Newton
on the Sabine, through Conroe, Co lumbus, Beeville, Alice to Reynosa
on the Rio Grande, consists chiefly
of sands, loosely consolidated, and clay-the so-called Tertiary series.
East of the Colorado River this East of the Colorado River this Tertiary area is generally forested,
constituting the so-called East
Texas Timber Belt. In the southeastern portion of the forested area xtensive pine forests prevail,
which form the basis for the important lumbering industry South of the Colorado this Tertiary area is a part of the so-called Rio Grande Plain, characterized by The Tertiary Area. The Tertiary area is underlain y valuable deposits of lignite and
ous points. In the East Texas Timiron belt considerable deposits of mined at the present time.
An abundant supply of underwhere in the Tertiary ary everyflowing and nonflowing wells are numerous east of the Colorado. This water is in most instances industrial use; south of the Colorado, however. owing to the semiderground water contains in manplaces large quantities of salt and is not suited for drinking nor for irrigation purposes.

East Texas Solls.
The soils in the East Texas Timber Belt are red and brown sands, corn are extensively grown. Along the interior margin much fruit and tomatoes, etc. South of the Colorado brown
sandy loam to red and black loam sandy loam to red and becur. The area between the Colorado and San Antonio Rivers is tion, cotton and corn being the leading agricultural products. agricultural development has not thus far reached the stage of the Within the last five to seven years that any serious attempe has been State to the plow. Within this period many irrigation projects have been inaugurated. Aside from the rrigation farming, stock raising
continues to be the leading industry of this subprovince.
The re Coastal Prairies.
remaining portion of the
Coastal Plain is included in the Coastal Plain is included in the Coast Plairies, the strip of low-
lying, flat country immediately adjacent to the coast. These Coast Prairies are formed by the upbeds, referred to the Quaternary series of rocks. The elevation of the interior margin does not exis generally treeless, except along the stream valleys, though occa-
sionally mottes of live oak and thickets of messuite and huisache
are found on the ulands. are found on the uplands.
The culture of rice is an imporof these prairies; in the centra portion sugar cane, fruit and truck ern portion the culture of cotton and the raising of cattle are the portant oil fields of Texas are loportant oil fields of Texas are loceation being determined by th
stfucture. In most places abundant supplies of potable underground
water may be secured; though im mediately adjacent to the coast this water is in many localities salty. The Central Basin.
The second large geographic
rovince of Texas is the Central Rasin, lying west of the Coastal Plain in the north central portion region gets its name from the fact
that it is surrounded on the east, that it is surrounded on the east escarpments, which everywher overlook this relatively depressed
area.
Like the Coastal Plain, the Central Basin is characterized by the out rop of a series of strata or rock Unlike those of the former region however, these have an inclination
to the northwest instead of to the In point of time this Central In point of time this Central Basin antedates the It represents a ahich the State has been built nce the surface was covered by Coastal Plain. Which sheets then xtended much further toward the interior than they do at present grents of erosion and the old buried Central Basin land surfac
has been uncovered.

Central Basin Subdivisions.
subdivisions of the ral Basin may be recognized. outheastern portion. The topography is hilly and rugged and the country is only sparsely covered
with soil. The underlying rock with soil. The underiying rock longing to the Algonkian (and probably Archean) system, and of the earth's history. Important deposits of iron ore, granite and rare earth minerals occur here Llano country is important agriculturally, and in addition to fertile clapply of artesian water.
Carboniferous Area.
The Carboniferous area lies north of the Llano country and forms th egion. It is underlaid chiefly b deposits of limestone, shale and sandstone. The soils vary from region is the site of an important agricultural industry, cotton, milo rops. Valuable deposits of bitu minous coal, building stone and clay occur, and these form the water, the farms and towns of this
section depend largely on impound-
ed supplies in creeks and ravine water is available in deep wells in any considerable part of this subprovince
The Red Beds Country.
The Red Beds country forms the The characteristic feature is the mesquite vegetation and the red from the underlying red, clays of the Permian rock series. The prevalence of red clay soils has given is rapidly becoming a well developed agricultural section. Cotton, leading crops. Important deposits of gypsum, salt and clay occur, a number of places. Water is mainly derived from impounded supplies in creeks and ravines and
from shallow wells. Flowing wells from shallow wells. Flowing wells water from the deep wells is to
highly mineralized for drinking.

The The Platean Province. ies to the west of of Texas Basin and the Coastal Plain and east of the Pecos River. This
province is formed by another group of rock strata, which lis horizontally on top of those of the Central Basin. Two minor subdivisions The Staked Plains
The northern half includes the Staked Plains of Texas. The underlying materials are mostly beds accumulated in a lake (now obliterated) which existed in this portion of the State in a comparative. history; namely, the Tertiary. The Staked Plains are very leval, The soils are fine sandy loams, loams and sands. The average rainfall is from 15 to 24 inches a y yar. Formerly cattle raising was the is being successfully practiced. Alfalfa, barley, broom corn, cotton,
wheat and fruits are being success: wheat and fruits are being success:
fully raised without the aid of irrigation.
While
While the geological structure of the Staked Plains is unfavorable tesian wells excent in a few isolated spots, the structure widespredd, water-bearing formations, which
may be reached in wells ranming may be reached in wells ransing
in depth from 40 to 600 feet. These wells supply abundant quantities of water.
ing wells these nonflowing pumpfor purposes of irrigation.

The southern half of the Platead
rovince is represented by the Edfeature of Texas owes its existence to earth movements, which oc arred large crack or break developed at this time along the line which is now the southern margin of the hrough Austin, San Antonio and Del Rio). The crustal block north of the break was lifted up boduly with the south. The uplifted block constitutes the so-called Edward Plateau and the Stockton Plateau known as a fault and is called the Balcones fault.
The surface formation of the EdWards Plateau is a hard resisten aceous series, known as the Ed The uplands of the Edwards Pla eau are level grass-covered area with live oak and shrub oak mottes n places. The soilis sparse, and agricultural purposes. They are mainly devoted to the raising of cattle, sheep and goats. In the nowever, occur fertile alluvial
lands. which are used for farming purposes. Black clays are the preailing soil types here, cotton, corn milo maize, wheat and oats being In this portion of Texas surface wells are not abundant, but cer tain beds of the Edwards, Glen Rose and Trinity formations are nonflowing wells. These wells ange in depth from 100 to 500 feet.
Flowing wells, except in one or Flowing wells, except instances, do not ocur.

Trans-Fecos Region,
Trans-Pecos region includes hat portion of Texas lying west of to Pecos River. It may be divided
to subprovinces, namely, the Ptockton Plateau and the Trans Pecos mountains. southeastern corner. It represents the extension into this region o $t$ is separated only by the canyon t is separated only More properly his subprovince should be includ ed in the Plateau region of Texas teen inches a year. The country is sparsely settled and is used al
most entirely for cattle raising. The Trans-Pecos mountains oc cupy the western portion of the sent the extension into Texas of the Cordilleras of North America. Precipitous, rugged mountains, plains iormed by the wash from the adjacent high

The more important ranges are tre Guadalupe, Santiago, Chinati, Quitman and Franklin. The eleva-

$$
\begin{aligned}
& \text { Geologically Complex. } \\
& \text { Geologically this region is }
\end{aligned}
$$

complex. There is involved in the suructute rock strata and masses tem from Archean to Recent. The strata have been highly folded, faulted and eroded. Accompanying
the folding and faulting was pronounced volcanic action. was prorocks have been wedged between
the strata, have occupied fissures, the strata, have occupied fissures,
thus forming dikes, and have spread over the older rocks. These great geological disturbarces have been favurable for the
formation of metallic minerals, and this is the only portion of Texas, with the exception of the Llano
country, where the geological concountry, where the geological confor the accumulation of ores, iron excepted. Among the metallic desilver, copper, lead, gold, tin and quicksilver.
This mountainous country is not fall averages only 10 to The raina year, and without irrigation farming can not be successfully irrigation is being practiced in che valleys, and this development may usually raised under irrigation are alfalfa and Kaffir corn.
Ground water is scarce and the supply commonly depended on for ed storm water. Cattle raising is the predominant industry, with mining occupying industry, wit
second place.

VOTES FOR WOMEN
 equal in which whe:
Eual suffrage: women exercise English-Speaking-

It takes over 300,000 horsepower in turn the

Total . ............ $\overline{5,046,460}$
Total in the world...15,514,647

$\qquad$


## TEXAS MINERAL RESOURCES

## AND MINERAL PRODUCTION

The articles which follow will give the readers a complete survey of the mineral and water resources of the State, the status of their development and statistics of mineral production. The year 1911 is the latest period for which complete production statistics are available for all minof the mineral resources and the later data is given. The development progressing and both subjects underground water supply of Texas is time.

## TEXAS MINERAI

PRODUCTION, 1911 $\underset{\text { in Geology, University, Instructor }}{\text { (By Alexander }}$ Following is a statement of quantity and value of minerals produced in Texas in the year 1911. complete data is available Petroleum, barrels. clay and clay Natura
4 sphal tone and .............. and and gravel, short yypsum
 ime, short tons., lons sold
ead. short tons.........
ein, short tons,
old, fine ozs., Troy...
ems fand and precious
stones ems
stone
ppper ment, Founds
quicksillyer's earth, quicksilver and san

lime brick. ........ Total *The statistics used in..... |  |
| :---: |
| $\$ 18,817,304$ | ose collected by used in this report are

fical Suited States GeoRecord for Seven wise state Record for Seven Years.
The value of the mineral pro n of the State during the past

## 

 t will be noted from the table ase over 1910, it has not yetched the total of 1907 , the most ductive year thus far recorded. ched a maximum figure in point
value.

## Minerals vs. Agriculture

 agricultural products of texas otton, corn, oats, hay, wheas , potatoes, barley, tobacco andDigitized for FRASER

With this, the mineral product of yet its size and importance is not, to be ignored. In 1911 its value exceeded that of the wheat and oat it was about was $\$ 16,569,000$ ), and corn crop.
In the list of mineral-producin States Texas ranks twenty-third. duction in 1911 , $\$ 549,901,327$ ) pro in order follow Ohio, Illinois, Wes Colorado, Missouria, New York, ana, Michigan, Arizona, Oklahoma Utah, Alabama, Nevada, New Jer sey, Kansas, Iowa, Tew Jer-one-half the States of Practically produce less in the way of mineral wealth than Texas.
PETROLEUM LEADING
MINERAL PRODUCT
Petroleum continues to be the leading mineral product of Texas, it has enjoyed this distinction. The following table will indicate the production and value of petroleum as began to figure as a factor in the oil markets.
Production by Years.

| ar- | Quantity, |  |
| :---: | :---: | :---: |
| 1900 | 836 |  |
| 1901 | 4,393,658 | $\begin{array}{r} \$ 871,996 \\ \mathbf{1}, 247,149 \end{array}$ |
| 1903 | 17,083,658 | 3,998,097 |
| 1904 | 22,241,413 | 7,517,479 |
| 1905 | 28,136,187 | 7.552, 262 |
| 1907 | 12,567,897 | 6,565,578 |
| 08 | 11,206,464 | 10,401,863 |
| 09 | 9,534,467 | 6,700, 708 |
| 1910 | 8,603,862 | 5,719,735 |
| 1912 | 11,735,057 | 6,554, |

The production for 1912. $\qquad$ bared production of 1912 as comincrease of $2,208,583$ barrels in point of quantity and $\$ 2,298,161$ in this increase the Notwithstanding of the State still lacks considerable 1905 . In this year thous total of

Texas fields were in their prime produced.
Texas in 1912 climbed back to third in the list of oil-producing States, In ter having been sixth in homa in the order named were the only two States that surpassed
Texas in oil production.

Texas Oil Fields.
At the present time oil is pro-
duced commercially at the follow-
ing localities in Texas. Batson lig and in Batson, County. Goose Creek and Humble in Harris County; Markham, in Matagorda County; Spindletop, in Jefferson County; Dayton, in Libin Navarro County; Petrolia, in Clay County, and Electra, Burkburnett and Iowa Park, in Wichita County. The production of these Several fields during the years
1910 and 1911 was as follows:
Production and Value of Petroleum in Texas, 1910 and 1911.

| District- | $\begin{array}{r} 1910 . \\ \text { \|Quantity } \mid \end{array}$ | Value. | Price. | $\frac{191}{\mid \text { Quantity\| }}$ | ${ }^{11}$ Value. | Price Barsel. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corsicana | $137.331 / \$$ | 87,623 | \$0.638 | 128,526\|\$ | 74,439 | \$0.579, |
| Powell | 450,188 | 242,440 | 548 | 373,055 | 186,528 |  |
| Petrolia | 126,531 | 69,086 | . 546 | 168,965 | 92,046 | . 544 |
| Elatson | 1,113,76̄ | 8¢51,92\% | . 76 ¢ 5 | 1,023,493 | 704,788 | .688: |
| Dayton |  | 6,815 | . 711 | 4,344 | 2,946 | -678 |
| Mamble | 2,4955,999 | 1,927,879 | . 548 | 2,561,828 | 1,864,598 | . 54.3 |
| Saratoga | 1,024,347 | 789,761 | 771 | 925,777 | 739,247 | . 798 |
| Sour La | 1,518, 2 | 1, 961758 | 813 | 1,965,939 | 724,978 | 750 |
| Other field | \% 384,850 | 214,496 | . 567 | z683,868 | 371,412 | . 542 |

*Includes small production from South Bosque, in McLennan and Brown Counties;
Goose Creek, in Harris County; Hoskins Mound, in Brazoria County; Piedras Pintas, in Duval County, and Potters Point, in Marion County . zIncludes smanl production from
Hoskins Mound and Potters Point.

## New Fields Discovered

Since the last issue of the Almaita County, and a field in Shackelford County have been discovered. The Burkburnett field is located Burkburnett, west of the town of the northern part of Wichita Coun$y$, about seventeen miles northnorthwest of Wichita Falls and of Electra. Oil was dicovered in July, 1912, in a well drilled by the Corsicana Petroleum Company on the Schmocker farm. The deep eet and the deep wells are producng at the present time about 100 s the largest producer in the field, making 140 barrels a day. The George well is next with 100 barare drawing oil from a shallow sand and average 30 to 50 barrels a day. The total daily production at the present time (.Sept. 29, 1913),
is 1,500 barrels
${ }^{1 / 3}$ Near Iowa Park, also in Wichita County, about ten miles west of Wichita Falls, oil has been found 8 to 15 barrels a day. The total (production at the present time Thus far no deep sand las been found. Near Trickham, in the southeastpecting continues at an active rate.

A number of producing wells have been brought in. The oil is light a sand at a depth of about 950 feet rels per well daily. The great dis tance from the railroad hinders vigorous development.
A small strike of oil was made near Somerset, in Bexar County, in active at the present time. At Crowther, in McMullen Coun process of drilling. Late in the fall of 1913 on was developed near the Moran gas fields, in Shackelford County.
All of the other localities mendescribed in some detail in the 1910, 1911 and 1912 issues of this ditional information on the history geology and statistics of these fields should consult these num In addition to the localities above listed, oil occurs in small quantities at a great number of other places in pexas. At some or these cally.
IMPORTANT GAS
FIELDS IN TEXAS
The important gas fields of Texas are the Petrolia field, in Clay County; the Corsicana field, in Navarro County; the Reiser ficid

In Shackelford County; the Mexia Tricknam fimestone County the ty; the Crowther field, in McMulien County, and the Bangs field, in
The County.
Thetrolla lies close to Red River, in
was discover fleld lies close to
Clay County. Gas Was aiscovered in 1907 and occurs
in a sand at 1,500 feet in depth.
The wells prouce from $8,000,000$ to $30,000,000$ cublic feet of gas daily. Dallas and Wichlta Falls and in ada cities and towns are being supplied with gas: Petrolia, Henrietta, Byers, Bowle, Decatur, Alvord,
Rhome, Sunset, Bridgeport. IrvRhome, Sunset, Bridgeport, Irv-
ing. Bellevue, Arlington, Dalworth,
Grand Prairie Grand Prairie, Denton, Denison, Gainesville, Sherman and Whites-
boro.
At Corsicana there are several gas wells which range in depth promssure of 200 to 225 pounds. The gas is used to supply consumers in At Reiser, in
number of gas wells exist, the gas of which is piped to Laredo and
is used to supply domestic and is used to supply domestic and The Moran Field. At Moran, in Shackelford Coun-
ty, the following gas wells have
been drilled by the Texas Col pany:
 Cublume.
Gas Peet of
$2,000,000$
2ar
are being supplied with gas and supply Waco and possibly Temple Gas has also been developed

Gas in Coleman County.
ty, at Trick well of in Coleman County, a gas well of 350 pounds pres-
sure and 30000000 cubic feet capacity has been discovered while
driling for oil. The town of Crowther, in McMullen County, is being supplied
with natural gas from one well in with natural gas from one well in In May, 1913, the Neodosha Gas and Oil Company brought in a gas
well at a depth of 1,120 feet thres miles northwest of Bangs, in
Brown County, the capacity of Brown County, the capacity of
Which is said o be $3,000,000$ cubic
feet daily Which is sald io be 3,000,000 cubic
feet daily. Arrangements are be.
ing made to plpe this gas into ing mangs.
The Caddo Caddo Fieldeld. is situated in Caddo Parish, Louisiana, adja-
cent to the Texas line, and from cent to the Texas line, and from
it gas is supplied to the towns of
Atlanta, Queen City, Marshall and Atlanta, Queen City, Marshall and
Texarkana, in Texas,
During 1912 $500,000,000$. During 1912 7,500,000,000 cubic
feet of gas, valued at $\$ 1,405,000$,
was produced from wells in Texas. was produced from wells in Texas
This is an increase over the pro-
duction of 1911 of 1966 . This is an increase over the pro-
duction of 1911 of $1,966,980,000$
cubic feet in volume and $\$ 390,132$ cublic feet in volume and $\$ 390,132$
in value. TEXAS COAL AND
In 1911 the coal production of Texas was $1,974,593$ shoduction of
short tons, having a mine value of $\$ 3,272,288$.
This is the largest production on This is the largest production on twenty-second in the list of coal-
producing States. Pennsylvania producing States, Pennsylvania ranking first. The following table
gives the production since 1884:
Total . . . . . . . . . . . . . . . . . . . . . 22,031,534
Total.

Three Important Fielde.
In Texas there are three important coal fields. These are the bituminous, or carboniferous, field
 Ker, Erath, Brown, McCulloch,
phens, Young and Jack; the subMaverick County, in the vicinity
of Eagle Pass, and the lignite of Eagle Pass, and the lignite
field in the Tertiary area.
Detalled description of these coal fields have been given in previous numbers of the Almanac and pertion should refer to these. Bituminous coal is mined in Palo Pinto, Counties; sub-bituminous coal is mined in Mavertck and
Webb Counties, and lignite, low Webb Counties, and lignite, a low
grade of coal relatively high in grade of coal relatively in Bas-
ash and water, is mined ing, Hopkins, Houston, Lee, Leon,
trop, trop, Hopkins, Houston, Lee, Leon, Titus, Van Zandt and wood Counties.
Coal and Lisnite minem.
There were 43 coal and lignite There were 43 coal and lignite 1911, nine new mines being opened during the year. Fifteen of these
produce bituminous or sub-bituminous coal and the remaining twenty-eight produce lignite. ous coal in 1911 was $1,083,952$ short tons, valued at $\$ 2,491,361$, or $\$ 2.30$ per ton at the mine. The produc-
tion of 11 gnite in 1911 was 890,641 short tons, valued at $\$ 781,927$, or
88 c per ton at the mine. 88 c per ton at the mine.
LARGE AND VALUABLE DEPOSITS OF IRON
In Llano and Burnet Counties In Liano and ircposits of iron ore of pos-
octbe commercial value. These are sible commercial value, These are tites, with a phosphorus content low enough to enable them to be an transportation factlities and
and
oroper fuel has retarded development.

peculiar advantage in the fact tha
they are very easily reduced an can be very cheaply mined. Diffi culties in the way of local manu facture of pig iron and steel in coking coal, of limestone suitable charcoal. and the high cost of made late in the fannouncements made late in the fall of 1913, th ing Texas ore in Texas are about to be overcome by the construction of a large steel plant at Texas
City, the coking coal to be brought by water from mines east of the quarriesin Coryell and other from ties in Texas.

## TAKES HIGH RANK

 The clay industry is next to the magnitude. In 1911 the vaint of State and tile produced in the pottery was $\$ 132.417$, the value of fire clay was $\$ 5,786$ and the total Value of the clay product was the list of clay-producing States Ohio leads and then follow in order Pennsylvania, New Jersey,Illinols, New York. Indiana, Mis.
souri. California. Iowa, West Virsouri. California. Iowa, West Vir-
ginia, Washington and Texas. ginia, Washington and Texas. the variety, quantity and yalue of
clay products in Texas in 1910 and 1911: Clay Productn, 1010-11.






Total value ......................... $\$ 2,665,705$ Clag-Burning Eistabitishments.
At the present time no china ware, porcelain or sanitary ware Ware, porcelain or sane State. Clay-burning establishments operate in Atascosa, Bexar, Bastrop,

Medina, Navarro, Wise, Wilson,
 Wichita, Travis, McLennan, Milam, ties of Texas. One hundred and
eighteen plants were in operation
in in 1911 .
 Ateas, Pollowed by the Cretaceous and Carboniferous areas. Many
haluable claye deposits exist Mhich
have not yet been developed. have not yet been developed.

ASPHALT DEPOSITS.
While in Texas a number of tabosy in Montague, Burnet, Ander
on and Mvalae Countles. son and Uvalde Countles. none of present time, though the deposits of Anderson, Uvalde and Montanue
Counties have been worked In the post. The chief source of asphalt in Texas isinine residum derived from
 heavy oils from Spindletop, Hum and Batson, yield upan distillation a variable percentage or asphait
ranging from o to 20 per cent This material is used extensively manufacture of tarred papers
cement prodiction. Portland cement is a substance
which when wet possesses the prop orty of hardening under water. It
 and limestone of certain composi-
tion in proper proportions, which milture is ther ground and burned
to a cinker in a kin. The cilnker when cooled is pulverized, and the ment.
There are many deposits of limesess the praper chemical composition for the manufacture of ce-
ment, but there are only comparament, but there are only compara can be made profitably at the present time.
oxerate in Texas; two are siltuated t Dallas and the third is located near San Antonio, the fourth a
ki, Paso. The first three mills
 cenjent the so-called Austin chalk taceous series. and mitx with it the
clay or shale from the overlying and underying formations.
Natural cement differs from Notural cement cent ine frens trom that that
the materials from which the nat the materials from Which the nat urai cement is made are not arti-
ficially mixed but they have been
mixed to proper composition by
nature Natural as and a small ampunt of such ce ment has been manufactured at Whi Antonio by the same company Which makes the portiand cemen however, is constantly becoming of less importance. owing to the
superior qualities of Portiand cement.

MANY KINDS OF STONE. In Texas valuable deposits. Countles and in the Trans-Pecos country, The Llano and Burne granites are the only ones quar
ried for market at the presen
 occur in these two counties, in
cluding coarse-grained and fine grained, bue and pink. Severa
quarries
are in operation quarries are of operation. Th
 The grantie from these quarrie is used for building purposes, for
monuments and for the construc tion of road
San Saba deposits occur in Burnet. San Saba and Presidio Countles, the
present
the meing
Inadequate transportatlon facilities are in par
responsible for their lack of devel
opment Limestones suitable for bullding purposes exist in the
ous. Cretaceous and Permian area of Texas. Limestone quarries are
on operation at Crawford is in operation at Crawford. in Mc. Trav1s County; Baird, in Cark, Callan County; Jacksbora, In, Jack County
and Balinger, in Runnels County In adalitinger lime Runnels Count In adatilon limestone 18 quarried Texas.
Serpentine deposits, suitable for the manuracture of ornaments.
wainscoting, etc., ocur in Gillespie County. but so far these material Sendistone deposits exist in the Tertiary, Carbonterous and Per quarried at Pecos, in Reeves Coun ty apd Barstow, in Ward Countv ${ }_{a}{ }^{4} 11$ Sandstone sulted for riprap, jetty work and ballast is quarried a Wan, in Brazos County; Quarry. in Wa shington Country and Muldoon in Fayette County.
into crushed stone suited for pav ing and construction parpores at at
Jack shoro. in Jack County; near Jackshoro. in Jack County near
Salessile, in Pack Pinto County Chito. In Wise County. and near
Viva. in Bexar County. Limestone sultable fo
flux in the smelting of inse as orea occurs at many places in the Cre
aceous area. The best known uarries where rock of this charac ter is produced are at
tion, in Coryell County.

Rank in Stone Production.
in anks thirty-first in the $1115 t$ of sates, of the entire output. Pennjivania heads the list, producing
Stone Production, 1011.
The following table gives the
value of the various kinds of stone value of the vario
produced in 1911:
Granite
Gandsone
Simestone .${ }^{70,488}$



## SAND AND GRAVEL

Sand and gravel are produced materials are widely distributed but material of good grade or
adapted for particular purposes is adapted for particular purposes is
not so commonly found. The deposits are largely confined to the
flood plains and valleys of the flood plains and valleys of the
streams. Some of the chief cen ters of production are: Austin, in ravis County; Smithville, in Bas County; Columbus, in Colorado Ccunty, and Calaveras. in Wilson The follis Statintice.
poduction of sand and indicates the 1912 and the use made thereof.
 ampand oity, incuatio ot lishing, fire, engine and 16,468 3384,042 Molding Sand. By molding sand is meant the
nd used for making the molds into which metal is cast when drawn from the blast furnace. It
also includes core sand, which is also includes core sand, Which is
used for making the cores which
occupy the nollow spaces of the occupy the hollow spaces of the
cast piece. Molding sands must he
sufficiently cohesive so that cores and molds can be made; they must be sufficiently fire-resisting so
that they will not melt when the molten metal is poured into the mold, surcicientiy porous to permit escape of gases given off by the
cooling metal and surficiently durable to enable it to be used for a
number of times. of course not number of times. of course no and sand possess these properties,
and deposits of this character are
not of common occurrence not of common occurrence.

Building sand is used for making mortar and concrete. making con-
Gravel is used for mast crete, for railr
making roads.

Glass sand is used for the manufacture of glass. Sucer sands must be practically pure grains of quartz. ree from iron, magnesia, lime:
alumina, etc. A number of deposits of glass sand exist in Texas. glass factories in Texas, three located at Wichita Falls ana one at
Texarkana. Cheap fuel in the form of natural gas is a vailable. Without cheap fuel to go with it. a de-
posit of glass sand does not pososs much value. Sand is also used for grinding and polishing wares, for the manupowders, et. locomotives in order to reduce the
olicperiness of the track when getslifperiness of the track when getPaving sand is used as filler be
triten blocik 3 , bricks, etc., in street triten blosix

SE OF GYPSUM.
GSE OF GYPSUM.
Gypsum is the material used in Paris, mand hafacture of plaster plasters, coll water paints, tic. In the Permian area of Northwest Texas this mingypsum, alabaster and gypsite, or gypsum qarth. The gypsim earth which is commonly used in Texas From it is mainufactured plaster of aris and hard wall plaster. Mill Hardeman County, and at Hamlin in Jones County, four mills being in operation in 1912. The total number of tons ci plaster produced
in $1 \rightarrow 12$ vas 143,281 , valued at
$\$ 991,685$.

TEXAS SALTT DEPOSITS. mian and diratrias areas of NorthFest Texas and in spots-at the
so-ialled salines-in the Tertiary area Manuacturing plants ope::y; at Palestine. County, and at Grand Saline, in The total production in 1912 wa 373,064 barrels, or 52,229 short tons valued at $\$ 290,328$.

LIME PRODLCTION
Edwards is manufactured from the in the Cretaceous series-along th Balcones scarp, where the rock is favorably exposed for working Rock, in Williamson County; Mc Nell, Travis County; Dittlinger, in

Springs, in Bexar County. Both the ordinary quicklime and the
hydrated lime are produced at the hydrated lime are produced at the The three named plants
Thetal production in 45,529 short tons, valued at $\$ 236$, , or $\$ 5.19$ per ton
TEXAS METAL PRODUCTION. production of gold, silver, copper
and lead in Texas in 1910 and 1911: $\underset{\text { Gold- Production Statistics. }}{1011 .}$



 Total value...... $\$ 209,061.00$
 from the gold-silver-copper mines
near Van Horn. The Hazel silverneapper mine near Van horn is now in operation.

$$
\begin{aligned}
& \text { EA Paso County. } \\
& \text { oduction was ma }
\end{aligned}
$$

No production Was mane from the mines near Lasca and Sierra
Blanca in 1911. At the Bonanza
mine small mine small operations are in progress, some lead and zinc or
reported as 3 hipped in 1912.
Premidio County.
Candelaria District ore was shipped in 1911. The Presidio mine, in this district, The the princi pal precious metal producer of Texas, having been in operation occurs in the Cibolo limestone of
the Carboniferous series and is the Carboniferous series and is
princlpally silver chloride (horn
silver) wits principally silver chloride (horn
sllver), with which are associated
more or less isolated patches of more or less isolated patches of
silver-bearing lead ore.

Knox County
In 1911 some development work Was done on the Pvron copper prospect near Truscott. The ore is clays of the Permian series. Some copper ore was minea from the Harris \& Harkins mine, in the Pernone was shipped.
Llano County.
The Heath mine of the Llano pold and Rare Metal Mining Comworkings consisting of a
vertical
shaft.
$250-$ foot
incline shaft, four 65 -foot vertical shaft and 200 feet of open cuts. A new
fifty-ton mill was put in operation infty-ton mill ${ }^{\text {Ka }}$ as
in January, 1912.
Prospecting was continued on the

QUICKSILVER PRODUCTION. Quicksilver is mined near Terlingua, in Brewster County. The ore occurs in calcite
Cretaceous rocks. It carries about Cretaceous rocks. It carries abou
1.7 per cent of metallic quicksilver
A number of A number of mines have been in
operation in this district, but the operation in this district, but the has been producing during the past three years. The following table shows th quicksilver output of Texas from the beginning of operations in 189

## Production Statintic

 The value of the total output San Francisco prices, is, up to and
including $1910, \$ 1,916,400$

TIN IN IEL PASO COUNTY Cassiterite, the ore of tin, occur wations in light red so-called aplite cutting granite on the eas
base of the Franklin Mountains
twelve twelve miles $\begin{gathered}\text { I Grth of El Paso, Tex }\end{gathered}$ A small mill and an oll-burning erected and a few tons of pure tin have been made. The total pro
duction in 1911 was 5 short tons duction in 1911 w
valued at $\$ 4,226$.

## MINERAL WATERS

The sale and production of mineral water is an important indus
try in Texas. In 1911 $1,637,932 \mathrm{gal}$ -
lons of mineral lons of mineral water were sold, valued at $\$ 158,367$. The statistic
of the industry since 1904 are given
in the in the following table:


The greater part of the minera parposes. Rold is used for medicinal twenty of the springs, accommo
dating nearly 25000 patrons the rater at elghteen of the springs
is reported as used for bathing is reported as used for bathing. A list of the more important minin the 1912 Almanac and persong sue.

SULPHUR.
Valuable deposits of sulphur occur in Trans-Pecos Texas, but the abence ted development prevented also occurs in isolated spots beneath the structural mounds or domes in the coastal ith gypsum, salt and more or less Wil. Such deposits exist at Big
Hil, in Matagorda, and near Bryan Hill, in Matagorda, and near Bryan
Heights, at the mouth of the Bra-
zos River, in Brazoria County, Texas.
At the last named locality sulphur is being mined and shinped operations having begun in No:vember, 1912. At this point well
sections show 760 feet of gravel,
gumbo and cap rock, below thls gumbo and cap rock, below thls 150
feet of sulphur-bearing lone
dolomite and gypsum. The base of the sulphur is found to vary in depth from 900 to 1,100 ing beds gypsum and rock salt are gain ioundickness from a fer ange in thickness from a rew An extensive plant has been orected to facllitate the mining of
the sulphur. The "ore" is obtaine by a process similar to that employed In Louisiana. Wells are
irilled to the sulphur beds and into drilled to the sulphur beds and into steam. The steam melts the sulphur, which is then pumped to the

## FULLER'S EARTM.

A clay which when finely pow-
dered possesses the property of decolorizing oils when they are filtered through the pulverized earth is known as Fuller's earth. number of valuable deposits of this earth occur in Washington, Gonzales, Fayelte. Burelson and Karnes Countits, but high freight velopment. The Fuller's Earth Company of Houston operates at Somerville, in Burieson County and
the Commercial Pulverizing Com-
pany of Houston in Burleson and payy of Houston
pounties.

SAND-EIME BRICK.
A brick made of sand and lime, n place of clay, is called a sandmade where no clay can be had. but where sand and limestone are in San Antonio.

MICA.
Mica is a mineral made
up of ansparent. fire-resisting leaves or flakes. It has a wide commerThe most extensive ground mica. mica is in the manufacture of elec-
rical apparatus, but a considerable quantity is stili used in the glaz-
quan ng trade for stoves, for gas lamp
chimneys, for lamp shades, etc. The demand ior mica for glazing is Tmall and only the best quality and the larger sheets are thus used.
Deposits of mica occur in El Paso County and are being develped by the Texas Mica Company

DEVELOPMENT OF
UNDERGROUND WATER
The underground water resources of the State have been described by this writer in the 1911 number of the Almanac and persons desirng more information should refer time it is desired to call attention only to particular features in the water resources of the State that have occurred since the last issue or publlon

A small iron pot, capable of confirst output of the quart, was the Arst output of the iron industry in Amst at a foundry on the saugus River, near Lynn, before 1650 . The
power behind the pot, writes Ralph power behind the pot, writes Ralph
Davol in Two Men of Taunton," was no less a personage than John
Winthrop Jr., who furnished the
"influence, forge at "Hammersmith," as they named the place.

Texas has large and extensive deposits of high-grade iron ore. At suming large quantities of iron and steel articles made many thousands shipping ore to the smelters in the East. It is believed that the day is not far distant when the per in Texas, notwithstanding the absence of coking coal.
Texas, With its enormous deposduce many thousands of horsepower in the form of electricity to cities many miles distant from the lignite fields. This will, be done by establishing producers gas and
electric plants in the lignite dis-
tricts, conveying the power over tricts, conveying the power over
long distance cables.

Surveys have been made of large
and valuable deposits of pure white marble in Culberson County with marble in of developing. Pure white
marble, while not rare, is not marble,
Gold has been discovered in
Reeves County in the vicinity of
Reeves Co
Saragosa.

## SYSTEMATIC OBSERVATIONS

OF THE RAINFALL IN TEXAS
（By B．Bunnemeyer，Section Director，Weather Bureau，Houston，Tex．） In the editions of 1911 and 1912 of the Texas Almanac and Industrial into the climatic conditions of this the thought best to present a short discussion state．In this edition it is Which，in importance，is second to no other factor of precipitation only， this great agricultural domain where the princinal source；at least in PHENOMENON OF measure upon the timely occurrence of rain．

AND CLOUD FORMATION
Systematic observations of pre cipitation have been made in man localities uninterruptedly for a large number of years，and in some instances antedate the Civil War so that the normal values may be safely accepted and used in a study Moisture exists in the air water vapor exists in the air as he air can hold depends entirely apon the temperature，the ratio of ncrease with temperature being at rrees Fahrenheit the air can hold .97 grains of moisture per cubic 76 grains，and at Fahreinheit， 90 degrees ahrenheit， 14.81 grains per cubic 90 degrees oot．Whatever lowers the tem－ erature of the air below the point lay be regarded as a cause of pre－ pitation．．The phenomenon of in is a continuation of the proc－ ere are quite a number，but only
ree are recognized as sufficient．
ly vigorous to produce precipita－
tion．These are： 1．Warm，
blowing over moisture－laden air land．This process is most active during our cold season．
2，Ascending currents due to
convection，expanding aloft cooling below the temperature and the dew point．This process is son，resulting in dur warm sea－ at night when day showers，but the skies usually become clear ward Ascending currents forced up pressure，or by hills barometric and other barriers．This process is incidental to the movement of physical or low pressure or to the $\stackrel{+}{\text { tory．}}$
Whenever precipitation occurs it of these processes by one or more and force of wind have direction nent bearing on the amount of moisture precipitated． normal monthly table shows the cipitation at stations havingl pre－ ord of ten years or more，arranged
NORMAL PRECIPITATION．

| NORMAL PRECIPITATION． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stations－ | ${ }_{\text {a }}^{\text {a }}$ | $\frac{\stackrel{0}{0 .}}{\frac{1}{1.08}}$ |  | $\begin{gathered} \text { 蓿 } \\ \hline 029 \end{gathered}$ | $\frac{\text { 4ing }}{379}$ | $\frac{\text { gi }}{217}$ | 魯 | $\frac{6}{4}$ |  | ®゙ | 运 | ¢ | 昌 |
| iny | ${ }_{3}^{1.02}$ |  |  | ${ }^{2.28}$ | 3.721 3.49 | ${ }_{3.58}^{3.17}$ | ${ }_{2.45}^{2.40}$ |  |  |  | 1.24 | 1.13 | $3{ }^{24.71}$ |
| rillo | ${ }_{0}^{3.22}$ | 3.22 | 2.99 | 3.39 | 3.79 | 4．48 | ${ }^{2.95}$ | ${ }_{4} 1.70$ | ${ }_{4}^{2.69}$ | 2.08 | 1.58 |  | ${ }^{25.03}$ |
| ur City | 2.61 | ${ }_{2} 28$ | ${ }_{4} .65$ | 1.72 | 3．67 | 2.99 | 3.17 | 2.81 | 2.36 | 1.71 |  | 3．68 |  |
|  | 2.02 | 2.40 | 2.41 |  | ${ }^{5} .18$ | ${ }_{2}^{4.71}$ | 4．27 | ${ }_{2}^{200}$ | 2.70 | 3.01 | 2.83 | 2.54 |  |
|  | 0．66 | 0.69 | 0.97 | 2.33 | 3.44 | 2.93 | 3． 20 | 2.41 | 3．74 | 2.83 | 2.53 | 2.34 | ${ }_{32.95}^{41.95}$ |
|  | 1.09 | 1．72 | 2.85 | ${ }_{2}^{295}$ | 3.21 | 4.91 | 4.96 | ${ }_{4.32}$ | ${ }_{2} 3.24$ | ${ }_{2}^{2.18}$ | 1．42 | 1.13 | 24.35 |
| spr | 0.39 | ${ }_{0} .45$ | 1.95 | 2.62 | 3.52 | 3.06 | 3.84 | 2.61 | 278 | 2.81 | 4．01 | 3 | 42.65 |
| ${ }^{\circ} \mathrm{e}$ | 109 | 1.39 | 1.78 | 3.52 | ${ }_{279}$ | 1.86 | 2.99 | 1.76 | 2.47 | 2.14 | 2.45 | 1.84 | ． 56 |
|  | 1.40 | 1.64 | 1.75 |  | 4.20 | ${ }_{2.3}^{1.88}$ | ${ }^{3.57}$ | ${ }_{2}^{1.90}$ | 3.13 | 3.07 | 2.23 |  |  |
|  | 1.72 | 3.05 | 3， |  | 4.93 | 3．52 | ${ }_{5}^{3.07}$ | ${ }_{3}^{2.20}$ | 2.94 | 2.98 |  | ． 05 | 42 |
|  | 0.91 | 1.23 | 2.21 | 3.06 | 5.13 | 3.69 | ${ }_{2} .39$ | 1．69 | ${ }_{2}^{3.02}$ | 3．50 | 3.24 | 3.74 |  |
| am | 3.49 | 3.87 | ${ }_{2}^{2.72}$ | 3.54 | 3.16 | 4.68 | 5.31 | 5.13 | 5.56 | 4.05 | ${ }_{3}^{2.48}$ | ${ }_{3}^{1.05}$ |  |
|  | 1.17 | 1.87 | 1.19 | ${ }^{1.89}$ | 3.75 | 4．37 | 3.11 | 2.71 | 3.20 | 2.76 | 3.76 | 3．48 | ${ }^{48.69}$ |
|  | 23 | 139 | 1．27 | 1.31 | 2.15 | ${ }^{1} 90$ |  | 1.68 | 3.02 | 1.93 | 2．35 |  |  |
|  | 1.31 | 1.12 | 1.57 | ${ }_{3.35}^{1.31}$ | ${ }_{4}^{2.04}$ | 228 | 1.88 | 2.80 | 5.62 | 3.21 | 2.20 | 1.45 |  |
| $\mathrm{ng}_{88}$ | 0.38 | 0.56 | 0.54 | 1.73 | 17 |  | 2488 | 1.96 | 278 | 203 | 1.63 | 1.60 |  |
|  | ${ }^{0.81}$ | 0．76 | ${ }^{0} 0.95$ | 2.49 | 3.00 | 2.78 | 2.65 | 2.97 | 2 | 1.48 | 0.99 | 0.56 |  |
|  | 0．56 | 0．83 | 4.59 | 6．28 | 6．78 | 5.08 | 5.62 | 51 | 3.41 | 3.17 | ${ }_{3}^{1} 108$ | 0.50 |  |
|  | 0.65 | 0.63 | 122 | 2.6 | 3 | 95 | 3.3 | 2.24 | 1.46 | 1.44 | 3．466 | 4.81 |  |
| \＃at | 0.96 3.54 0.9 | ${ }_{2} 103$ | 1.32 | ${ }^{2} 5$ | 3.21 | 3.20 | 3.68 3.14 | ${ }_{3}^{1.91}$ | ${ }_{2}^{2.55}$ | ${ }_{2}^{2.45}$ | 1.53 |  |  |
|  | 54 | 2.41 | 2.49 | 3.37 | 4．57 |  |  |  |  | 2.17 | 1.60 | 1.50 |  |
|  |  |  | 0.81 | 2.90 | 2.40 | 1.65 | 3.16 | 2.07 | 3．37 | 1.6 | 3．47 |  |  |

Normal Precipitation－Continued．

| Sta |  |  |  | 台 | 边 |  | 学 | $\frac{\text { ®in }}{4}$ | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \text { Bn } \end{aligned}$ | ச் | $\stackrel{80}{4}$ | ஃ் | 啷 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Col | 3.42 | ${ }_{2}^{3.30}$ | ${ }^{2.93}$ | $2.90$ | ${ }_{2}^{2.99}$ | $\begin{aligned} & 4.94 \\ & 2.974 \end{aligned}$ | $\begin{aligned} & 4.22 \\ & 1.66 \end{aligned}$ |  | 5.30 | 3.11 | 3.76 | 3．20 |  |
| sica | $\begin{aligned} & \begin{array}{l} 2.25 \\ 2.49 \end{array} \end{aligned}$ | 2.53 | 2. | $\begin{aligned} & 1.80 \\ & 3.70 \end{aligned}$ | ${ }^{2.78}$ | 2．74 | $\frac{1.66}{2.65}$ | $\begin{aligned} & 2.28 \\ & 1.96 \end{aligned}$ | ${ }_{2}^{4.79}$ | ${ }_{2.74}^{2.05}$ | ${ }_{3.26}^{2.41}$ | ${ }_{2.77}^{1.32}$ |  |
| ${ }_{\text {Curar }}$ Curican | 1.91 | 2.48 | 1.02 | 3.04 | 3.59 | 4.04 | 2.67 | 1.85 | 3.95 | ${ }_{2.81}$ | ${ }_{3.04}$ | 2.09 |  |
| Da |  | 2.76 | 3.74 | 3.98 | 4.34 | 4.15 | 3.40 | 3.04 | 2.82 | 2.52 | 2.96 | 2.5 |  |
| Danevan |  | 3.10 | ${ }^{2} .66$ |  | 3.28 | 4.33 | 4.90 | 3.39 | 385 | 4.42 | 3.90 | 3.7 |  |
| Decatur | 1.68 | ${ }_{1} 1.98$ | ${ }_{1} 1.61$ | ${ }_{294}^{3.27}$ | ${ }_{2}^{4.96}$ | 4．39 | ${ }_{2}^{4.56}$ | 2．27 | 29 |  | 2．49 | 1.37 |  |
| Del Rio | ${ }_{1}^{1.78}$ | ${ }_{2}^{1.86}$ | ${ }_{292}^{1.68}$ | ${ }_{3}$ | 4.82 | 3.71 | 2．40 | ${ }_{3.04}^{2.69}$ | 2.93 | ${ }_{3}{ }_{3} .69$ | ${ }_{2} 1.55$ | 2.17 |  |
| Dialville | 1.88 | 3.52 | 359 | 5.66 | 4.10 | 3.56 | 4，22 | 3.17 | 2.16 | 3.10 | 2.62 | 5.50 |  |
| Dublin | 1.20 | 1.05 | 1.37 | ${ }^{3.36}$ | 4.03 | ${ }_{3}^{2.78}$ | 2.64 | 1.94 |  | 2.82 |  |  |  |
| Duva | 1.56 | 1.79 | ${ }^{2.04}$ | ${ }^{3.77}$ | 4． 11 | ${ }_{3} 3.16$ | ${ }^{2.64}$ | 1.72 | 2.45 | 3.00 | 2.49 | 2.38 |  |
| Eagle P | 0.51 | 0.46 | 0.38 | 1．23 | 0.35 | 0．55 | ${ }_{2.13}^{1.76}$ | 1.72 | 1.45 | ${ }_{0.95}^{1.58}$ | 1.59 | 0.89 |  |
| $\frac{\mathrm{El}}{\text { Encinal }}$ | ${ }_{0} .60$ | 1.95 | ${ }_{1.06}$ | ${ }_{2.21}$ | 3．42 | 2.95 | 2.14 | 1.62 | 2.44 | ${ }^{1.61}$ | 1.02 | 0.86 | 2. |
|  | 1. | 2.10 | 2.56 | 3.5 | 3.18 | 3.17 | 1.89 | 2.07 | 2.54 | 202 | 2.21 | 1.88 |  |
| Fort Clar |  | 0.74 | 1.12 |  |  | 2． | 1.96 | 1.92 |  | 1.89 | 1.45 | 1.05 |  |
| Fort Davis | 0.54 | ${ }^{0.50}$ | 0.39 0.98 | 0.51 | ${ }_{2}^{1.38}$ | ${ }_{2.10}$ | 3.44 | ${ }_{2}{ }_{2} .71$ | ${ }_{2}^{2.75}$ | 1.34 | 1.02 | 1．09 |  |
| Fort Stockt | 0.38 | 0.40 | 0.62 | 0.46 | 1.43 | 1.90 | 2．25 | 2.30 |  | 34 | 0．72 | 0.69 | 5. |
| rt Worth | ${ }^{0.93}$ | 1.27 | ${ }_{1}^{1.76}$ | ${ }_{3.65}^{2.65}$ | ${ }_{3}^{4.15}$ | 2.97 | 3．46 | ${ }_{2.36}^{1.87}$ | ${ }_{3.02}$ | 2.217 | ${ }_{2.43}^{1.57}$ | 1.28 |  |
| Fredericksb | ${ }_{1.57}^{1.31}$ | 1.82 | ${ }_{3.11}^{1.65}$ | 3．44 | 5．44 | 2.30 | ${ }_{4} .34$ | 2．18 | 3.24 | 34 | 2.27 | 2.09 | ． |
| Galvesto | 3.62 | 3.10 | 2.90 | 3.13 | 3.23 | ${ }^{4.75}$ | 3.98 | 5.01 | ${ }_{3}^{5.41}$ | 4.18 | 4.02 | 3．73 |  |
| Georgeto | ${ }_{0.81}^{1.60}$ | 2.10 | ${ }^{2.25}$ | 3．82 | 4.22 | ${ }_{3.99}^{2.53}$ | ${ }_{2.81}$ | ${ }_{269}^{1.36}$ |  | 2．47 |  | 1.37 |  |
| Grape | 1.92 | 1.78 | 3.13 | 3.82 | 4.94 | 3.50 | 3.33 | 1.65 | 2.45 | 3.01 | 264 | 2. | 3． |
| Greenv | 1.53 | 2.62 | 2.79 | 4.0 | 5.42 |  | 4.2 | 2.31 | 3.41 |  |  | 2 |  |
| Hallet | 1.91 | 2.40 | 1. | 3．40 | 4.08 | 3.42 | 298 | 1.98 | 2．59 | 3.19 | ${ }^{3} .00$ | 2.53 |  |
| Haske | ${ }^{0.65}$ | 1.95 | 17 | ${ }_{2}^{2.57}$ | 4.48 | 352 | 20 | 1.54 | 2， | 1.71 | ${ }_{2}^{1.47}$ | ${ }_{1}^{03}$ | 22 |
| Hewit | 1.64 | 2.24 | 2.43 | 4.46 | 5.50 | 4.24 | 3.36 | 1.65 | 2.45 | 3.35 | 2.72 | 2.30 |  |
| 1 sb | 0.85 | 2.59 | 3.19 | 4.27 | 5.51 | ${ }^{2.73}$ | 2.47 | 1.44 | 2.47 | 2.93 | 1.77 | 2.95 |  |
| Hondo | 1.25 | 1.40 | 1.61 | 2.90 | 4．62 | 1.98 | 4．33 | 1.77 | 3， | 2.25 | 1.73 |  |  |
| Houston | ${ }_{3.87}^{3.51}$ | 3.51 3.29 | 3.55 | 3.96 | ${ }_{4.93}$ | ${ }_{4.15}^{4.98}$ | ${ }_{2.91}^{4.09}$ | 3．77 | ${ }_{\text {4，}}^{4.89}$ | ${ }_{3}^{3.42}$ | 3．80 |  | $4{ }^{4}$ |
| cti | 0.75 | 0.92 | 1.4 | 2.94 | 3.39 | 3.10 | 3.38 | 1.88 | 2.50 | 1．55 | 1.48 | 1.03 | 24.3 |
| Kaufm | 1.44 | 3.34 | 2.97 | 3.44 | 4.74 | 3.71 | 4.29 | 275 | 3.00 | 3.61 | 3.05 | 3.53 |  |
| Keene | 2.18 | 2.16 | 2.63 | 3.91 | 5．11 | 4．04 | 2.80 | 1．86 | 2.18 | ${ }_{2}^{2.14}$ | 2 | 2. | 35．3 |
| Kopper | 1.15 | ${ }_{3.06}^{1.34}$ | 1.30 | ${ }_{3.61}^{3.65}$ | 5．03 | ${ }_{2.65}$ | ${ }_{2} .76$ | 1.83 | 2.79 | 3．59 | 2.85 | 2.41 | 34.6 |
| Lampasas | 1.43 | 2.06 | 1.76 | 3.51 | 3.66 | 3.55 | 1.86 | 1.86 | 2.55 | 2.83 | 2.15 | 1.83 |  |
| La Parr | 0.95 | 1.59 |  | 1.89 | ${ }^{2} 230$ | 1.69 | 2， | 2.27 | 3．58 |  | 23 | 1.07 | 2 |
| Llano | 0.72 | 1.19 | 1.02 | 2.70 | 2.55 | 2.01 | 2.74 | 1.35 | 1.98 | 2.12 | 1．33 | 1.24 |  |
| Longvi | 4.18 | 3.72 | 4.35 | 4.30 | 4.41 | 4.31 | 3.2 | 1.84 | 2.89 | 3.02 |  |  |  |
| Ki | 1.78 |  |  |  | 3.32 | 2.4 | 2.77 | 1.93 | 2.92 | 2.45 |  |  |  |
| McKinney | 2.48 | 5.14 | 4.03 | 5.04 | 8.33 | 5.74 | 3.28 | 1.78 | 3.96 | 3.19 | 3.18 | 3.8 |  |
| Marsha | 4．48 | ${ }^{4.11}$ | ${ }_{0}^{4.06}$ | 76 | ${ }_{2}^{4.38}$ | 3.01 | 3.67 | 2.49 | 1.30 |  |  | 0.54 |  |
| Midland | 052 | 1.00 | 0.12 | 0.67 | 3.20 | 1.61 | 1.40 | 1.39 | 1.99 | 0.72 | 0.55 | 0.67 |  |
| beetie | 0.60 | 0.55 | 0.73 | 2.75 | 3.77 | 3.53 | 2.42 | 2.97 | 1.90 | 2.41 | 1.18 | 0.63 |  |
| Mount | 0.63 | 0.82 | 0.58 | 1.87 | 2.21 | 294 | 3.19 | 2.55 | 2.13 | 2.11 | 1.36 | S1 |  |
| cogdo | 2.84 | ${ }_{1.69} 3$ | 3.82 | 4．69 | ${ }_{3}^{5.14}$ | ${ }_{3}^{4.70}$ | 5.04 | ${ }_{2}^{2.41}$ | ${ }_{2}^{3.36}$ | 3.41 | ${ }_{2}^{4.54}$ | ${ }^{4.31}$ | 48.1 |
| Ochiltree | 0.30 | 1.60 | ${ }_{0.6}$ | 1.27 | 1.97 | 3.05 | 2.08 | 3.08 | 1.63 | 1.13 | 1.00 | 1.01 |  |
| Palestine | 3.87 | 3.39 | 3.47 | 4.08 | 4.89 | 4．00 | 3.00 | ． | 3.20 | 3.60 | ． 6 | 3.67 |  |
| Panter | 1.68 | 1.40 | 2.06 | 3.28 | 3.99 | 3.68 | 2.73 | 2.36 | 2.56 | 2.72 | 2.33 | 1.91 |  |
|  | 2.04 | 2.06 | 3.40 | 3．23 | 5．20 | 3．47 | 3．274 | 2.34 | 2.33 |  | 84 | 38 |  |
| Port Lav | ${ }^{124}$ | 0.47 | 0.45 | 1.80 | 4.53 | 3．24 | 3．77 | 2.44 | 28 |  |  | 0． 83 |  |
| Quanah | 0.59 | 0.73 | 1.36 | 1.72 | ${ }^{4.40}$ | ${ }^{3} .95$ | ${ }_{2}$ | 2.18 | 2.08 | 1.76 | 1.28 | 1.3 |  |
| Gran | 0.81 | 0.79 | 0.55 | 1.03 | ${ }^{2.37}$ | 1.96 | 1.38 | 1.87 | 13 | 1.57 | 0.83 | 0.7 |  |
| Robert | 0.77 |  | 1.25 | 2.10 | 3．33 | 2.6 | 1.86 | 2.01 | 3：05 | 2.00 | 1.82 | 1. |  |
| ge | ${ }_{1.13}^{1.93}$ |  |  | ${ }_{3}^{1.80}$ | S．49 |  |  | 3.40 |  |  |  | 3.1 |  |
| San An | 0.70 | 0.85 | 0.97 | 1.87 | 3.16 | 2. | 2.63 | 89 | 2.71 | 1.92 | 1.31 | 1.1 |  |
| San Ant | 1.68 | 1.78 | 1.68 | 2.94 | 2.96 | 3.11 | 2.22 | 2.69 | 2.94 | 1.49 | 1.78 | 1．56 |  |
| San Mar | 1.43 | 1.99 | 1.91 | 3．40 | 4． | 3．18 | 3.79 | 1.68 | 2.6 | 2.95 | 2.55 | 1.79 |  |
| sa | 0.70 | 2.29 | 1.85 | 203 | 2.22 | 2.76 | 2.20 | ${ }_{2.29}$ | ${ }_{2}^{2} .69$ | ${ }_{2}$ | ${ }_{232}^{2.26}$ | 0．${ }^{\text {L3 }}$ | 24．92 |
| Sherman | 1.71 | 2.53 | 3.06 | 3.60 | 5.02 | 3.79 | 4.70 | 2.55 | 3.65 | 3.32 | 2.53 | 1.80 | 38.25 |
| nd | 2.18 | 2.94 | 3.48 | 4.02 | 4.45 | 4.20 | 4.79 | 4.04 | ${ }^{3} 5.53$ | 3.19 | 3.42 | 3.29 | 43．62 |
| Taylor | ${ }_{2.82}^{2.20}$ | ${ }_{2.58}^{2.77}$ |  | ${ }_{3}^{3.64}$ | 4．32 | ${ }_{3.52}$ | ${ }_{2}{ }_{2} .62$ | ${ }_{2}^{2} 47$ | ${ }_{3.01}^{2.89}$ | 3.43 | ${ }_{2,05}$ | 3.2 |  |
| Temple | 2.10 | 2.17 | 2.46 | 3.88 | 4.33 | 3.39 | 2.44 | 1.42 | 2，62 | 2.34 | 2.78 | 2,9 |  |
|  | 0.70 | 0.95 | 1. | 1.95 | ${ }_{2}^{4.21}$ |  | 4.17 | 1.82 | 2.32 | 1.96 | 1.80 | 1.01 |  |
|  | 0．18 | ${ }_{3}^{1.45}$ | 1.81 | ${ }_{4}^{2.04}$ | ${ }_{4.59}$ | 2.54 | 2.72 | 2.00 | 2.90 | ${ }_{2} 1.85$ | 14 | 1.17 |  |
| Victoria | 2.50 | 2.62 | 1.93 | 3.21 | 4.01 | 3.44 | 3.89 | 2.88 | 3.06 | 3.66 | 3.21 | 2.22 |  |
| Waco | ． 26 | 2.34 | 3.39 | 4.56 | 5.00 | 3.36 | 2.35 | 2.64 | 2.59 | 2.56 | 2.67 | 2.50 |  |
| Weathe | 1.56 | 1.94 | 2．72 | 3.14 | 5.41 | 3．91 | 3.09 | 1.89 | 3.00 | 2.69 | 2.92 | 2.48 | 5 |
| ichita Falls | 1.04 | 0.97 | 1.86 | ${ }_{2.63}$ | 5.53 |  |  |  |  |  |  |  |  |

RAINFALL ZONES.
A cursory examination of this A cursory examination of this
table shows that the annual pre-
cipitation diminishes in regular cipitation diminishes in regular
proportion from east or southeast proportion from east or southeast
to west and northwest. In the eastern portion of the state, east
of an almost straight line from of an almost straight line from houn County southward to Calexceeds 40 inches. This is the Thence westward to an undulated line from Montague County southward to Aransas County the anThence westward to an undulated line passing through the western
portion of the Panhandle, through portion of the Panhandle, through to Val Verde County there is a
further decrease to 20 inches per annum. Wecrease to 20 inches per annum. West of this line the an-
nual amounts decrease to slightly less than 10 inches in the extreme
western portion of El Paso County.

$$
\begin{aligned}
& \text { Favorable Distribution. } \\
& \text { It has been stated that an }
\end{aligned}
$$

nual has been stated that an aninches produces arid conditions; land suitable for grazing only, and that more than is inches are favorable for agriculture, while more
than 100 inches produce vegetation too luxuriant for agriculture. But much depends upon the distribu-
tion of the rainfall throughout the year which, as will be shown later,

Existing deficiencies are met by rrigation on the one hand and by
drainage on the other. But even in sections where Irrigation is re-
sorted to for agricultural purposes cognizance must be taken of coge distribution of precipitation,
the
whether the water to be conserved Whether the water to be conserved
and used falls just prior to the growing season or whether it falls afterward, in which case it must be protected against evaporation
and seepage until the arrival of planting time.
The Texas Rainfall Curve. The rainfall curve for the state January and February; thence increases to May, which is normally there is a general decrease to tha close of the year, except for Sep-
tember, which shows a slight increase., which shows a slight inof the year, which are January and February, the precipitation is less
than one inch west of an undulated line from Wichita County south to Hidalgo County. East of that line the amounts range from one inch in the west to over three inches in the east. During the wettest
month of the year, which is May,
the monthy amounts range from the monthly amounts range from
two inches in West Texas to more than five inches in East Texas, except in the Trans-Pecos region,
where the amounts are considerWhere the amounts are consider-
ably less than two inches. Con-
sidering individual sections, how-


Digitized for FRASER $\begin{aligned} & \text { Avage Percentage of Precipitation from March } 1 \text { to Sept } 1 .\end{aligned}$ http://fraser.stlouisfed.org/


RECORDS OF PRECIPIGTION FOR PERIOD OF TWENTY YEARS． Ahilene，Taylor County（Elevation 1，788 Feet

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Year \&  \& $$
\dot{⿷ 匚 ⿱ 宀 ⿰ 犬 㔾}
$$ \&  \& $$
\dot{\underline{⿺}}
$$ \&  \& 者 \& 空 \& 哲 \& $$
\begin{gathered}
\stackrel{\rightharpoonup}{\Delta} \\
\stackrel{y}{m}
\end{gathered}
$$ \& 8 \& 遃 \& ¢ ¢ \& 咸 <br>
\hline $$
\begin{gathered}
1893 \\
1894
\end{gathered}
$$ \& ${ }^{0.31}$ \& ${ }^{0.33}$ \& ${ }^{0.66}$ \& 0．28 \& ${ }_{6}^{5.78}$ \& ${ }_{3}^{0.98}$ \& ${ }^{0.52}$ \& ${ }_{6}^{3.36}$ \& ${ }_{0}^{2.30}$ \& ${ }^{0.17}$ \& 2．00 \& \& <br>
\hline $$
\begin{aligned}
& 1899 \\
& 1895
\end{aligned}
$$ \& ${ }_{1.15}^{1.24}$ \& ${ }^{0.73}$ \& ${ }_{0}^{1.156}$ \& ${ }_{2}^{1.23}$ \& 6．49 \& ${ }^{3.30}$ \& ${ }^{0.768}$ \& ${ }^{6.129}$ \& ${ }_{3.56}^{0.54}$ \& 1．17 \& ${ }_{2}{ }^{\text {T23 }}$ \& － 0.43 \& <br>
\hline 18996
189 \& ${ }_{1}^{1.41}$ \& 0．78 \& ${ }_{0}^{0.14}$ \& ${ }_{0} 1.74$ \& 0.70 \&  \& 1．${ }_{2} .60$ \& ${ }^{1.58}$ \& （ 4.44 \& ${ }_{\text {c }}^{4.32}$ \& 0．38 \& 8 \& ． 71 <br>
\hline 1897
1889 \& 0.75 \& 1.08 \& 1．41 \& ${ }_{1} 1.78$ \& 2．60 \& ${ }_{\text {3，55 }}$ \& ${ }^{2.46}$ \& ${ }_{1}^{1.97}$ \& ${ }_{3.4}^{2.89}$ \& \& 0.01 \& ${ }_{2}^{0.62}$ \& 23.30 <br>
\hline 1899

1890 \& ${ }_{0}^{0.51}$ \& 0.01 \& 0.04 \& ${ }_{5}^{2.96}$ \& ${ }_{4}^{4.11}$ \& 5．55 \& ${ }_{2} 1.58$ \& 0.10 \& 0．44 \& 290 \& ${ }^{236}$ \& 4 \& ． 11 <br>
\hline 1901 \& 0.03 \& 1.44 \& 0.72 \& 0．98 \& 7.17 \& Tr． \& 0.28 \& 0.81 \& $\stackrel{1}{1.81}$ \& 0.61 \& 1．50 \& ${ }_{0}$ \& ． <br>
\hline ${ }_{192}$ \& 0.09 \& ${ }^{0.31}$ \& ${ }_{2}^{2,25}$ \& ${ }_{0}^{6.88}$ \& 6.68 \& ${ }_{3}^{1.87}$ \& ${ }^{7} .82$ \& ${ }^{0.06}$ \& ${ }_{8.34}$ \& 2.00 \& 2．46 \& 0．39 \& ${ }^{20.05}$ <br>
\hline ＋1904 \& 1.62 \& 0.27 \& 0.00 \& ${ }^{0} 0.95$ \& 2.20 \& 4．67 \& ${ }_{2}$ \& 1.42 \& 3．02 \& ${ }^{1.06}$ \& 0.40 \& －．10 \& 17．80 <br>
\hline 1905
1906 \& 1.11 \& 1．02 \& 2.91 \& ${ }_{2}^{3.41}$ \& ${ }_{2}^{6.00}$ \& 2．82 \&  \& ${ }^{0.28}$ \& 3．168 \& ${ }^{4.68}$ \& ${ }_{241}^{1.50}$ \& 0．89 \& ${ }_{29.06}^{33.06}$ <br>
\hline 1907 \& 1.44 \& 0.00 \& 0.85 \& ${ }^{0} .37$ \& ${ }_{4}^{4.13}$ \& 0.49 \& ${ }^{3} 4.5$ \& ${ }^{0.35}$ \& 0.45 \& 3．92 \& 20\％ \& 1.01 \& ${ }^{3}$ <br>
\hline 1908 \& ${ }_{0.05}^{0.63}$ \& 0.11 \& 0．73 \& ${ }^{6.38}$ \& ${ }_{2.71}^{8.35}$ \& 0．49 \& 1.09 \& 1.63 \& 2.50 \& ${ }^{6.94}$ \& ${ }_{2}^{241} 1$ \& 0.00 \& <br>
\hline 1910 \& 0.53 \& ${ }^{0.21}$ \& ${ }_{0}^{0.31}$ \& 1.31 \& ${ }_{0}^{2.11}$ \& 0.74 \& ${ }^{0.32}$ \& ${ }_{2}^{2.87}$ \& ${ }^{1.64}$ \& ${ }^{4} .62$ \& 0.38 \& 1.05 \& 15．93 <br>
\hline 1911 \& 0.3 \& 3．16 \& 1．40 \& 2．73 \& （1．80 \& 0．48 \&  \& ${ }_{2}^{2,83}$ \& 1．38 \& ${ }_{1.21}^{1.3}$ \& ${ }_{0}^{0.31}$ \& ${ }_{1}^{6.31}$ \& 25. <br>
\hline 1913 \& 0.25 \& 0.55 \& 1．27 \& 1.57 \& 4.73 \& 1.99 \& 0.72 \& 0.63 \& 4.42 \& \& \& \& <br>
\hline
\end{tabular}

Amarillo，Potter County（Elevallun gaze Feet）


Amarillo，Potter Ceunty（Elevation 3，07B Feet）－Contimued．


Beeville，Bee Counts（Elevation 22s Feet）


|  |  |  |  |  |  |  |  | 127 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2．80 | $\begin{aligned} & 3.30 \\ & 0.000 \end{aligned}$ | ${ }_{0.93}^{1.35}$ | 2.78 | ${ }_{4.230}^{230}$ | ${ }_{3.04}^{1.0}$ | 5.4 | 3.39 | 3．170 | ${ }_{266}^{4.73}$ |  | 1．67 |  |
|  |  | 280 | 230 | 285 | 3.70 | ${ }^{2} 205$ | 0.90 | 2.55 | 0.94 | 0.90 | 2.20 |  | 2 |
|  | 2．35 | 0.90 | ${ }^{0.55}$ | 5 | 2．50 | 3．70 | 1．93 | ${ }_{5}^{0.15}$ | 275 | ${ }_{3}^{3.28}$ |  | 3.20 |  |
|  |  | 1.30 | 2．52 | ${ }^{3.53}$ |  | 204 |  | 1．52 |  | 3．280 | 69 | 1．72 |  |
| 190 | 1.21 | 1.46 | 0.09 | 0.72 | ， | 0．7\％ | 1.90 | 0.00 | 7．68 | 1.47 | 8.03 | ${ }_{2.68}$ |  |
|  | 1.41 | 7.14 | 6.10 | 1.90 | ${ }^{1.49}$ | ${ }^{6.39}$ | ${ }_{3}^{16.42}$ | 0.40 | 4.93 | ${ }_{2.56}^{4.64}$ | 0．14 | ${ }_{3.41}^{1.45}$ |  |
| 190 | 0.66 | 3.64 | 5.51 | 5.43 | 4.98 | 6．58 | 1.20 | 1.32 | 179 | 4.13 | ${ }_{2}^{2} 20$ |  |  |
|  | ${ }^{0.55}$ | ${ }^{2} .39$ | 2．92 | ${ }_{2.55}^{4.68}$ | ${ }^{2.568}$ | 3．00 | ${ }_{2.57}^{3.08}$ | ${ }^{3.51}$ |  |  | 2．49 | ${ }_{1.17}^{1.21}$ |  |
|  | 0.48 | 1.02 | ${ }^{1.18}$ | 4.15 | ${ }^{235}$ | 5.0 | 2.19 | 9.85 | 2.87 | 0.81 | 268 | 25 |  |
|  | ${ }^{0.01}$ | ${ }^{0.54}$ | ${ }^{4.84}$ | O．79 | ${ }_{8}^{8.07}$ | ${ }_{\text {che }}^{2.76}$ | 1．75 | ${ }^{4.35}$ | 2.77 |  |  |  |  |
|  | 0.33 | 209 | 2.34 | 3 | ${ }^{6.00}$ | 1．30 | 0.13 |  | 0．48 | 0.82 | 2.66 | 4．12 | 2. |
|  | 0.58 | 8.4 |  | 0.13 | 0.35 | 6．2\％ | 0. |  |  |  | 1.37 | 1.54 |  |



| 170 ANNUAL RAINFALL REC |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brenham，Washington County（Elevation 350 Feet）． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ytar | 号 |  |  | $\stackrel{\Gamma}{\hat{E}}$ | $\dot{\ddot{E}}$ |  | $\underline{E}$ |  | $\stackrel{\dot{0}}{0}$ | \％ | 容 | 告 | 宮 |
| ${ }_{19}^{1893}$ | 0.59 | 1．00 | ${ }^{2} 0.0$ | 1.74 | 3.30 | 5.5 | 0.14 | ${ }_{8}^{1.61}$ | ${ }^{0.35}$ | 0.19 | 0.47 | 1.92 | 8.30 |
| 118 | ${ }_{2}^{4.00}$ | ${ }_{2}^{1.56}$ |  | ${ }_{2.24}$ | 1 | ${ }^{2.42}$ | 1.45 | 8．88 | 1.818 | ${ }^{1.56}$ | 0.47 | ${ }^{0.82}$ | 0.9 |
| 1889 | 6．65 | 4.51 | 3.9 | 3.67 | 0.93 | （1．30 | 2.0 | 1.46 | ${ }_{4}^{4.65}$ | ${ }_{5}^{1.90}$ | 4.12 | ${ }_{1}^{1.9}$ | 6．12 |
| 1893 | ${ }^{3} .00$ | ${ }^{6.65}$ | ${ }_{\text {3 }}^{4.86}$ | ${ }_{2}{ }_{2} .89$ | 1．9．2， | 2．03 | ${ }_{3.34}{ }^{294}$ | 3.74 | ${ }_{1}^{2.64}$ | 2．13 | 3.47 | 4．08 | 13．18 |
| 1800 | ${ }^{3.45}$ | 1．17 | 2．2． | ${ }_{231}^{2.31}$ | 1．\％ | $\stackrel{1}{2}$ | ${ }_{2}^{2} 76$ | ${ }^{0.36}$ | （0．66 | 29 | 3.08 | ${ }^{4.77}$ | 7 |
| 1901 | ${ }^{4.90}$ | ${ }^{2} 17$ | 2．4．4 | ${ }_{\text {che }}$ | ${ }^{6.35}$ | 2.74 | －6．63 | ＋．76 | ${ }_{2}{ }_{2} .81$ | 2．11 | 1．90 | 1．51 |  |
| 15 | ${ }_{4}^{1.80}$ | 1．74 | ${ }_{3}^{1.73}$ | 3．192 |  | 2033 | ${ }_{8,61}^{11.75}$ | ${ }_{\text {a }}^{0.00}$ | 7． 1.88 | ${ }_{1}^{11.21}$ | ${ }_{8}^{8.33}$ | 1．70 |  |
| 1904 | 0.41 | ${ }^{6.50} 5$ | 3．22 | 8.09 | 2.09 | 5，83 | 8．86 | ${ }_{4,10}^{1.35}$ | ${ }_{2}$ | ${ }_{2.00}$ | 1．90 | 4.05 |  |
| ${ }_{1905}^{1905}$ | 1.60 | ${ }_{2} 4.13$ | 7.48 | 9.78 | 5．74 | ${ }^{6.515}$ | 1．97 | 0.56 | 0.71 | 1．19 | 7.45 | 4．99 | \％ |
| 150 | 1.75 | 2.95 | ${ }_{2.60}^{118}$ | 2.81 | 31：33 | 2.71 | 8．182 | 28 | 3．183 | ${ }_{1}^{1.31}$ | 1.91 | ${ }^{2.58}$ | 6 |
| ${ }_{1008}^{1909}$ | 1.50 | 3.46 | 1．12 | ${ }_{3}{ }^{2} .68$ | 7.31 | 3．99 | 3．07 | 4．122 | 5．60 | ${ }^{278}$ | ${ }_{4}^{1.76}$ | 1．35 | 0．35 |
| 1910 | ${ }^{0.127}$ | 1．45 | 0．72 | ${ }_{3}{ }^{2} .65$ | 5．03 | 2， 296 | Lits | 2.12 | 0.99 | ${ }_{1}^{1.17}$ | ${ }^{4.121}$ | ${ }^{4.05}$ | 50．62 |
| 1911. | ${ }^{0.63}$ | ${ }_{\text {2 }}^{2} \times 25$ | －${ }_{\text {3．1．3 }}$ | 6．${ }^{6.94}$ | ${ }^{4.52}$ | 1．14 | ${ }_{0}^{4.31}$ | 0．838 | 0.22 | ${ }_{\text {2．896 }}$ | 2，20 |  | 4 |
| 1913 ．．．．．．．．．．．．．．．．．． | 1．92 | 3．18 | 5．34 | ${ }_{3.30}$ | 2．80 | 2.76 | 0．12 | ${ }_{2.93}$ | 4.00 |  |  | 6.58 | 22 |

Brownsville，Brown County（Elevation 38 Feet），

| ear | 稛 | 宾 | $\begin{aligned} & \text { 苞 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 豆 } \\ & \hline \end{aligned}$ | 荨 | $\begin{aligned} & \text { Oi } \\ & \hline \end{aligned}$ | 令 | 空 |  | む่̇ | 叐 | ¢ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1893 | 1.64 | ${ }_{0} 2.13$ | 0.16 | ${ }_{0}^{\text {Tr }}$ | O． 23 | ${ }_{0}^{212}$ | 9．72 | ${ }_{2}^{0.18}$ | ${ }_{266}^{1.02}$ | ${ }_{0}^{0.59}$ | 2．23 | 0.71 |  |
| 1895 | ${ }_{0} 1.47$ | 1．10 | 1．80 | 0.00 | ${ }_{3.26}$ | ${ }_{0.70}^{0.55}$ | ${ }_{0}^{0.292}$ | ${ }_{2} 293$ | ${ }^{2} 6.72$ | ${ }_{0.79}$ | 1．4 | 0．72 | 20 |
| ${ }_{1897}^{1896}$ | 0.81 | ${ }_{0}^{0.90}$ | 0．35 | 1.75 | 0．04 | 0.83 <br> 1.75 | ${ }_{0.00}^{1.63}$ | ${ }_{4}^{0.163}$ | 4．21 | 3．48 | ${ }_{3}^{4.09}$ | ${ }_{0}^{1.71}$ |  |
|  | Tr． | ${ }_{2.43}$ | 1.00 | ${ }_{0.75}^{1.75}$ | 1.10 | ${ }_{0.08}^{1.75}$ | 0.35 | ${ }^{4.65}$ | 4.39 | ${ }_{0.08}^{1.95}$ | 1．55 | 0.18 |  |
| 1899 | 0.16 | 1.09 | 0.13 | 15 | ir． | 2.39 | 0.30 | 0.00 | 2.70 | 5.96 | 3.42 | 1.54 | 19.59 |
|  | 2．43 | 0.42 | 2．00 | 1.75 | 0．10 | 1．00 | 1.20 | 0．23 |  | 3．90 |  | ${ }_{0}^{1.74}$ | 14.99 |
| 1502 | 0．50 | 0．30 | 0．00 | \％． 0.00 | ${ }^{2} .85$ | ${ }_{0.60}^{2.00}$ | 4．00 | ${ }_{0.00}^{1.00}$ | ${ }_{6} 8.90$ | 1.25 | 2．32 | ${ }_{0} 0.0$ |  |
| 1903 | 235 | 1.72 | 6.46 | 0.93 | 2.17 | 6.54 | 0.53 | 3.45 | ${ }^{2} .03$ | 0.10 | 0.03 | 0.50 | 36.78 |
| 1900 | 0.40 | 0.46 | 0.04 | 2.78 | 0.83 | 1.15 | 4．599 | 4.47 | 4．50 | 1．138 | 1.24 | $\frac{1}{120}$ | 2． 12 |
| 1806 | 0.24 | 2.29 | 0.10 | 3.39 | 1.57 | ${ }_{4.45}^{24}$ | 0．91 | 7.92 | 1.01 | 270 | 0.24 | 1.30 | 26，12 |
| 1908 | 0.71 | 0.37 | 0.13 | 5.98 | 0.71 | i． 82 | 2.63 | ${ }_{0.61}$ | ${ }_{5}^{1.01}$ | ${ }_{3}^{0.78}$ | ${ }^{2} .24$ | ${ }^{1.35}$ |  |
| 1909 | Tr． | 1.30 | 0.15 | 0.88 | 3.11 | 3.72 | 1.60 | \％ 6 | 1.21 | 0．31 | 0.58 | 2.10 |  |
| 1917 | 0.85 | 2．05 | 0．23 | 0.81 | 1．84 | （1．21 | ${ }_{0}^{0.48}$ | \％ | 110.71 <br> 275 <br> 1 | ${ }_{0}^{3.36}$ | － 1.24 |  |  |
| 1912 | 3.28 | 0.17 | 0．20 | 1.76 | 1.59 | 12．78 | 0.13 | 0.12 | 2.35 | 13.53 | 1.40 | 1.5 |  |
| 192 | 205 | 1.00 | 1.8 | 0.38 | 1.12 | 4.96 | 0.28 | 1.04 | 14．38 |  |  |  |  |

Corpus Christi，Nuecen County（Elevation 20 Feet）．

| Year－ | 号 | 盛 |  | $\begin{aligned} & \text { 官 } \\ & \hline \end{aligned}$ | 荨 | 若 | 宫 | 告 | $\begin{array}{r} \stackrel{\text { E }}{8} \\ \hline \end{array}$ | ¢ | 呂 | \％ | 部 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{1893}{1893}$ | ${ }^{5.91}$ | ${ }^{6.27}$ | 0.12 | ${ }^{0.42}$ | ${ }_{1}^{3.22}$ | 1.123 | ${ }^{0.49}$ | ${ }^{0.06}$ | ${ }^{1.14}$ | ${ }_{0}^{0.25}$ | ${ }_{0}^{1.28}$ | ${ }_{0}^{0.074}$ | 20．50 |
| 1885 | ${ }_{0} \mathbf{0} 31$ | 3.49 | 1.43 | ${ }_{2} .41$ | 5．57 | 3.80 | 4．00 | ${ }_{1.17} 1.1$ | ${ }^{1.68}$ |  | 4.14 |  |  |
| 1989 |  | 3.9 | 0.62 | 1．60 | 1.94 | 219 | 2.38 | 0.53 | 4.39 | 4.12 | 0.30 | 0.73 |  |
| 1899 | 2.57 | 0.06 | 1.61 | 0.83 | 228 | 1.81 | 0.00 | 3.24 | 0.98 | 3.79 | 0.11 | 1.08 |  |
| 1898 | 0.69 | 1.00 | 274 | 2.41 | 183 | 2.47 | 0.43 |  | 2.33 | 0.51 | 3．61 | 1.33 |  |
| 1890 | 242 | 1.10 | ${ }^{0.32}$ | 2．0\％ | ${ }_{2}^{1.16}$ | 4．76 | 5．43 | 5.48 | ${ }_{213}^{2.48}$ | 7．01 | 2．24 | ${ }_{2.16}^{1.81}$ |  |
| 1909 | 0.75 | 1.33 | 0.07 | 0.45 | 1.39 | 1.00 | 1.30 | 2.53 | 7.15 | 0.42 | 0.66 | 0.45 | 7.50 |
| ${ }_{1908}$ | ${ }_{1}^{214}$ | ${ }_{5}^{2} 8$ | 0.18 | 0．41 | 3．05 | 1．44 | 0．49 | ${ }^{\text {T7．}}$ | 3．63 | ${ }_{1}^{1.83}$ | ${ }_{3}^{3.91}$ | ${ }_{0}^{2.3}$ |  |
| 190 | 0．20 | 1.37 | 0.18 | 5.15 | 3.04 | ${ }_{2}$ | 1．133 | 1．52 | 7．82 | 2．78 | 0.84 | 2.47 | 5 |
| ${ }_{1906}$ | 0.88 | 2．91 | 3．65 | ${ }_{2}^{3.36}$ | 1.43 | 4．04 | ${ }_{0.41}^{1.63}$ | 0.18 | ${ }_{3.55}$ | 0．25 | 5.10 | ${ }^{2.17}$ |  |
| 1900 | 0.27 | 1.93 | 0.50 | 0.9 | 3．18 | Tr． | 0.56 | 0.66 | 0.75 | 0．81 | 5.16 | 1.45 |  |
| 1909 | \％${ }^{\text {Tr }}$ | 1.47 | 0.66 | 0．86 | ${ }_{3.65}$ | ${ }^{0.50}$ | 1．37 | ${ }^{3} .71$. | 2.41 | 0.42 | ${ }^{1.75}$ | ${ }^{1} .980$ |  |
| 1910 1911 | 0．83 | 0.66 | 2.05 | 258 | 4．05 | 0.94 | 0.16 | 2.76 | 6．09 | 0.17 | 0.20 | 0.98 |  |
| 1912 | 0.44 | 1．49 | 2.58 | 1．5i | ${ }_{8} 8.45$ | 6.48 | 0.11 |  | 1.37 | ${ }^{0.88}$ | 1.58 | ${ }_{1}^{3} 1.65$ |  |
| 1913 | 0.92 | 2.23 | 2.01 | L28 | 0.76 | 3.96 | Li18 | 0.60 | 9.17 |  |  |  |  |



Danevamg，Wharton County（Elevation 145 Feet）．

| Year－ | 岳 | － | $\begin{aligned} & \text { dig } \\ & \text { 思 } \\ & \hline \end{aligned}$ | 宸 | 嵏 | $\stackrel{8}{\circ}$ | 莒 | 等 |  | $\stackrel{8}{8}$ | 盛 | 边 | 砢 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{1896}^{1896}$ | ${ }^{3} 4.24$ | 5.92 <br> 1.51 | ${ }^{3.13}$ | ${ }_{281}^{2.88}$ | 1．22 | ${ }_{1}^{1.97}$ | ${ }^{8.20}$ | ${ }_{3.42}^{1.11}$ | ${ }_{2}^{6.72}$ | 5．${ }^{5} .20$ | 1．72 | 5．52 | ． 56 |
| 1898. | ${ }^{4.21}$ | 4．13 | 2.74 | ${ }_{6.28}^{28}$ | 1．34 | 6.00 | ${ }^{3} .35$ | 4．19 | 292 | 1.40 | $2{ }_{2}$ | 288 |  |
| 12999 | ${ }^{\text {5 }}$ 5 96 | 1．36 | 0.41 | ${ }^{3.38}$ | 0.82 |  | ${ }^{1.174}$ | 1．81 | 3．77 | 7．${ }^{\text {\％}}$ \％ | 2.63 | 5．50 |  |
| 1901 | ${ }_{1}^{1.53}$ | 3.08 | 1.08 | cis | 3.48 | ${ }_{2}$ | ${ }^{5} 58$ | 1.84 | ${ }_{2}$ | 2.88 | 1.47 | 4.23 | ${ }_{30}{ }^{6.93}$ |
| ${ }_{1900}$ | $2{ }_{2}^{255}$ | 6．59 | ${ }_{7} \mathbf{7} .72$ | 1．55 | ${ }^{2.56}$ | ${ }_{2} \mathbf{2} 27$ | ${ }_{7.65}^{2.38}$ | ${ }_{8}^{0.30}$ |  | 3.21 | ${ }_{0}^{8.15}$ | 5．55 | 453．43 |
| 190 | 0.70 | 1.16 | 0.50 | 3．44 | 7.85 | 4.2 | 5.69 | ${ }_{2.88}$ | 4.55 | 6.10 | 3.15 | ${ }_{2}$ |  |
| 1800 | 1.95 | 4.32 | 5.54 | 8.12 | 1.45 | 8．71 | 2.56 | 3.13 | 3.72 | 4.80 | 10.60 | 5.60 |  |
| ${ }_{1090}$ | ${ }_{296}^{1.25}$ | ${ }^{1.97}$ | ${ }_{225}^{1.45}$ | 0．900 | ${ }_{8.05}^{1.33}$ | ${ }_{0}^{1.02}$ | ${ }_{2.15}^{8.62}$ | 4． 3.45 | ${ }_{\text {4 }}$. | ${ }_{2}^{285}$ | 14.31 | 1．25 | 5 |
| 1908 | ${ }^{1.30}$ | 2.75 | 1.90 | 4.95 | 2.65 | 3.60 |  | 2.85 | 5.65 | 23 |  | 2.60 |  |
| ${ }_{1910}^{1909}$ | ${ }^{0.000}$ | 0．45 | TT， | 2．95 | ${ }_{8}^{5.52}$ | ${ }_{3.85}^{4.85}$ | 5．78 | － 0.70 | 1．96 | 4．20 | 3.70 | 1．65 | 2 |
| 1911 | ${ }_{0.00}^{1.15}$ | 0．45 | 1.20 | 8．25 | 8．75 | ${ }^{\text {0，76 }}$ | 3．13 | 0．70 | 2.25 | ${ }_{2}^{2.30}$ | 0.50 <br> 3.18 | 3.55 4.10 |  |
| ${ }_{1}^{1912}$ | 20．90 | ${ }_{2}^{1.70}$ | 200 | 3.20 1.90 | 3.90 0.20 | 8.00 0.83 | 1．15 | 2.55 | 1．25 | 5.35 | ． 90 | 4.32 |  |

Dublin，Frath County（Rlevation 1，466 Feet）


Fi Pano，El Paso County（Elevation s， 82 Feet）．


Fort Clark，Kinney County（Elevation 1，050 Feet）．

| Year－ | 踲 | $\begin{aligned} & \text { 茴 } \\ & \hline \end{aligned}$ | 國 | 苞 | 宥 | 号 | 号 | $\frac{1}{4}$ | 蓸 | ¢i | 寿 | 号 | 年 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{189}^{1939}$ | 0.02 | 0.21 | 0.60 | ${ }_{1}^{1.08}$ | 2.08 | 0.20 | ${ }^{0.32}$ | 8．36 | 0．12 | ${ }^{0.27}$ | 0.28 | 0.9 | $\frac{6.45}{60.76}$ |
| ${ }_{\text {coser }}^{1899}$ | ${ }^{1.13}$ | ${ }_{2.65}^{0.06}$ | ${ }^{0.00}$ | ${ }^{4.34}$ | ${ }_{5}^{6.40} 5$ | ${ }^{2.06}$ | ${ }^{0.785}$ | ${ }_{\text {8，}}^{1.85}$ | 9．1．88 | ${ }_{0}^{0.25}$ | ${ }_{2} 0.00$ | 0.29 | 30．76 |
| ${ }_{10989}^{1996}$ | 1.20 | 0.55 | Tr． | 0.60 | 0.16 | 1．02 | 3.66 | 0.50 | 4.60 | 3.69 | 1.07 | 1.50 | 55 |
| 1818 | ${ }_{0}^{17.78}$ | 0．00 | 0.71 | ${ }_{0}^{1.54}$ | 2.08 | 2.23 | 0.10 | 1.16 | ${ }^{0.36}$ | 0．14 | 0.00 | 0．82 | ${ }^{32}$ |
| 189 |  |  | 1.10 |  |  | ${ }_{2}{ }_{2}{ }^{3} 5$ | ${ }_{3}{ }^{0.31}$ | 7．00 | 2．14 | － 3.81 | ${ }^{0} .60$ | 0.75 | 9．89 |
| ${ }_{1500}^{1900}$ | ${ }_{0}^{1.49}$ | 0．40 | ${ }_{0}^{4.20}$ |  | 12．50 | 1．10 | 1．80 | 2．00 0 |  |  | ${ }_{0}^{1.05}$ | ${ }_{0}^{0.09}$ | ${ }^{31.54}$ |
| ${ }_{1980}^{1890}$ | 0.08 | 0．35 | 1.11 | 3．0\％ | 8．40 | 0.00 | 2.20 | 0.00 | 0.20 | 0.30 | 270 | 2.75 | ${ }^{13.16}$ |
| 1504 | ${ }_{7}^{260}$ | ${ }^{1.70}$ | ${ }_{0}^{0.90}$ | ${ }_{3}^{0.00}$ | ${ }_{2}^{3.37}$ | 7．20 | 1．25 | 0.65 | ${ }_{\text {c }} 7.93$ | 20．55 | ${ }_{0}^{0.50}$ | 0.01 | ${ }^{33.94}$ |
| 180 | 0.10 | 0.80 | 4．78 | 3.85 | 2.40 | 2.00 | 0.20 | 0.40 | 3．6 | 1.03 | 3．25 | 1.75 | ${ }^{24.23}$ |
| 1906 190 | 0．05 | ${ }_{0}^{1.85}$ | 0.30 | 3．04 | ${ }_{2}^{1.40}$ | ${ }_{2}^{0.30}$ | 3.85 | 4．00 | ${ }_{\text {2 }}^{2} 5$ | ${ }^{0.85}$ | 5．28 | 0.70 | ${ }^{195.43}$ |
| ${ }_{1}^{1908}$ | 0.00 | 0.70 | 0.9 | 2.22 | 4.93 | 0.01 | ${ }_{1} 1.85$ | ${ }_{2}{ }^{2} 8$ | 0.24 | 220 | 1.77 | 0.20 | ${ }^{18.06}$ |
| 1910 | 0.81 | 0.00 | ${ }^{0.184} 4$ | 4．84 | 1．30 | 0．83 | ${ }_{0}^{3.55}$ | 0.45 | 200 | \％ 1.08 | ${ }^{1.40}$ | ${ }^{1.22}$ | ${ }_{14.98}^{14.76}$ |
| 1911 | 0，36 | 4.18 | 2.05 | ${ }^{3.73}$ | 0． 20 | 0.00 | Tr． |  | 0.02 | 1.54 | ${ }_{3}^{3.35}$ | ${ }_{1}^{1.50}$ |  |
| 1913 | T． 0.40 | ${ }_{210}^{17}$ | ${ }^{1.55}$ | 1.00 | 2．96 | ${ }_{\text {4．}}^{4.15}$ | 0．50 | 0.70 | 1. | 4，30 | 0.30 | 2.90 | 1.75 |





Galventon，Galventon County（Elevation 6y Feet）．

| Yer－ | 旡 | 官 |  | $\stackrel{\dot{5}}{4}$ | 童 | 范 | $\dot{E}$ | $\frac{\ddot{y}}{4}$ | $\begin{aligned} & \stackrel{.}{\Delta ̈} \\ & \stackrel{\rightharpoonup}{0} \\ & \hline \end{aligned}$ | $\stackrel{\tau}{0}$ | 完 | 咎 | 咅 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{189}^{1893}$ | 0.54 | ${ }^{1.99}$ | 0.88 | 5.70 | 2.88 | ${ }^{7.45}$ | ${ }^{2} .8$ | ${ }^{5} 502$ | ${ }^{1.722}$ | ${ }_{0}^{0.55}$ | ${ }^{3.92}$ |  |  |
| ${ }_{1895}^{1895}$ | 2．41 | ${ }_{4.20}^{20}$ | ${ }_{2}^{1.77}$ | ${ }^{1.43}$ | 1.00 | ${ }^{9.89}$ | 6．32 | ${ }_{4}^{9.59}$ | 2．64 | ${ }_{2} 0.51$ |  | 0．72 | ${ }_{91}$ |
| ${ }_{189}^{189}$ |  | 2.70 | 3.59 | 1． 19 | 0.82 | 0.34 | 3.90 | 0.35 | 2.20 | 2.14 | 1.94 | 2.33 | 23.71 |
| 189 | 2.97 | 2.23 | 4.59 | 1.24 | 1.27 | 0.31 | 0.78 | 4.65 | 2.40 | 5.12 | 1.02 | 2.58 |  |
| 1898 | ${ }^{4.48} 1$ | ${ }_{4}^{4.03}$ | ${ }^{4.10}$ | 3．80 | ${ }^{1.58}$ | ${ }_{4}^{1.61}$ | 3．62 | 3．68 | c． | 0．88 | 容．65 | 2．26 | ．${ }^{16}$ |
| 1800 | ${ }^{10.39}$ | ${ }_{3.59}^{2.83}$ | 0．83 | 2．80 | ${ }_{4}$ T．53 | ${ }^{4.51}$ | ${ }^{18.74}$ | 6．94 | 11.80 | ${ }_{5} 1.54$ | 1．64 |  |  |
| 1800 | 1.39 | 2.24 | 1.96 | 2.86 | 0.46 | 0.85 | 6.11 | 6．58 | 7.81 | 15.00 | ${ }^{2} .06$ | 3．98 | ${ }^{1.33}$ |
| ${ }_{903}$ | 0．922 | ${ }_{6}^{2} 812$ | ${ }_{8} 0.92$ | 2.85 | ${ }^{2} .72$ | ${ }_{3}^{8.22}$ | 2.818 | 9．45 | ${ }_{2} 7.11$ | ${ }_{3}^{1.48}$ | ${ }^{6.039}$ | ${ }_{2}^{1.93}$ |  |
| 1809 | 1.01 | 0.99 | 0.57 | 11.04 | 5．20 | 4.4 | 3.41 | 4.13 | 5.43 | 0.80 | 4.14 | 200 | ${ }_{142}$ |
| 1906 | 1．47 | 5．23 | ${ }_{2}^{2.05}$ | 7．62 | 1.70 | ${ }^{7.78}$ | 5．85 | 2.00 | ${ }_{2.41}^{2.48}$ | ${ }_{10.88}^{1.07}$ | 5．74 | ${ }_{\text {1．}}^{1}$ 53 | 188．60 |
| 190 | 1.4 | ${ }_{2}^{2} 29$ | 2.28 | 4.00 | 6.80 | Tr． | 1．40 | 2．94 | 7.56 | 6.96 | 6.33 | 4.04 | ${ }_{43} 3.93$ |
| 1908 | 215 | ${ }^{3} 3.35$ | 0.00 | 1.4 | 3.40 | 0.54 | 7.23 | 4.16 | 14．64 | ${ }^{0} .34$ | 1.38 | $2{ }^{274}$ | 13201 |
| 99910 | 0．02 | 1．46 | 1.98 | 3．39 | 5.85 | ${ }^{3.788}$ | $\frac{1.61}{6.19}$ | ${ }_{20}^{4.06}$ | ${ }_{4}^{2} 7.7$ | ${ }_{9}{ }_{9} .63$ | ${ }_{0.85}^{1.89}$ | ${ }_{3.58}^{2.51}$ | ${ }^{34.95}$ |
| 1911 | 0.90 | 0.61 | 3．88 | ${ }_{7} 7.63$ | 1．90 | 1.45 | 4.73 | 5．45 | 3.50 | 5.92 | 5.06 | ${ }_{8} 9.96$ | 51．13 |
| 1912 | 2.42 | ${ }_{3}^{1.21}$ | 2．00 | ${ }_{246}^{4.29}$ | 4．50 | 4.4 | 0．16 | ${ }_{3} 1.58$ |  | 204 | 0.41 | 8.61 | ． 0 |





Lampasas, Lampasas County (Elevation 1,020 Feet).



| Longview，Gregrg County（Elevation 336 Feet）． |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year－ | 寝 | $\frac{18}{0}$ | 窇 | 至 | $\dot{\ddot{a}}$ | $\begin{array}{r} \text { o } \\ \text { 号 } \\ \hline \end{array}$ | $\frac{\dot{\vec{a}}}{\underline{0 n}}$ | $\frac{59}{4}$ |  | $\stackrel{\text { ¢ }}{8}$ | \％ | 華 | 京 |
|  | ${ }^{0.38}$ | ${ }^{1.8}$ | ${ }^{2.88}$ | ${ }^{1.67}$ | ${ }^{6.64}$ | ${ }_{2}{ }^{264}$ | ${ }_{5}^{0.90}$ | ${ }^{3.81}$ | ${ }_{2}^{4.20}$ | ${ }_{0}^{1.46}$ | ${ }_{\text {c }}^{6.42}$ | ${ }_{3.66}^{262}$ |  |
|  | ${ }_{7}{ }_{7}^{4} 4$ | 1．48 | ${ }_{3.22}^{7.07}$ | 4.49 | 1.24 | ${ }^{20.76}$ | ${ }^{5.50}$ | ${ }^{\substack{6.34 \\ 1.4 \\ 1}}$ | ${ }_{0}^{2.06}$ | 0．21 | ${ }_{266}^{1.60}$ | ${ }_{3.26}^{3.66}$ |  |
| 12009 | 8．188 | 5．20 | ${ }_{2}{ }^{2} 8.82$ | ${ }_{4}^{209}$ | ${ }_{24}^{24}$ | 3.4 | 3.78 | 1.08 | 3．30 | ${ }^{6.66}$ | 215 | 2.55 | 4， |
| 1308 | 9．42 | 288 | ${ }^{10.31}$ | ${ }^{4.21}$ | 6．76 | ${ }_{5.21}$ | ${ }_{1} 17$ | ${ }_{3}^{1.70}$ | 2．16 | 2.39 | ${ }^{3} .80$ | 2.56 |  |
| 1800 | ${ }_{3}^{4.09}$ | － | ${ }^{1.64}$ | 5．69 | ${ }_{5}^{6.87}$ | 4.4 | ${ }_{1}^{1.81}$ | 0．83 | －${ }^{0.4}$ | 5．60 | ${ }_{148}^{1.86}$ | ${ }^{4.20}$ | ${ }^{39} 8$ |
| 1500 | 3．30 | ${ }^{3.01}$ | 4．：00 | ${ }_{\text {c }}$ 6．52 | 5.55 | 1．47 | ${ }^{3.55}$ | 1．72 | 8． 2.12 | 3．78 | ${ }_{4} 1.48$ | ${ }_{279}$ |  |
| ${ }^{1900}$ | ${ }^{2.52}$ | ${ }_{9}^{2.63}$ | 3．59 | 3.44 | ${ }_{3}^{203}$ | 4．50 | 7.89 | 0．09 | 5．00 | 2．43 | ${ }^{10.71}$ | －${ }_{2}^{4.00}$ | 148．20 |
| 1800 | 0.47 | ${ }_{292}$ | ${ }_{204}^{3.62}$ | 6． 23 | 4.82 | 3．85 | 4．90 | ${ }_{28}^{218}$ | ${ }_{237}^{11}$ | 3.22 | ${ }^{2} .30$ | 5．80 | 40．20 |
| ${ }_{1900}^{1906}$ | 4.4 | ${ }_{228}^{233}$ | ${ }^{6.10}$ | ${ }^{8.50}$ | 7.59 | ${ }^{8.51}$ | ${ }_{5}^{8.03}$ | （0．40 | ${ }^{2.08}$ | 1.80 | 3．56 | ${ }_{7.9}^{8.96}$ | ${ }_{483}^{63.3}$ |
| 1900 | ${ }_{2}^{2.3}$ | ${ }^{26}$ | ${ }^{\text {c }}$ | 5.71 | 7．59 | 3．68 | ${ }_{2} 5.88$ | 1．15 | ${ }^{3.13}$ | 4．09 | 10.98 | ${ }^{7} \mathbf{3} 6$ | 45， |
| ${ }_{1909}^{1208}$ | 2．37 | ${ }_{3.74}$ | ${ }_{3.18}^{2.62}$ | ${ }_{249}^{4.96}$ | ${ }_{10}^{10.30}$ | ${ }_{2}^{2.05}$ | ${ }_{1}^{2.46}$ | $\stackrel{3}{3.52}$ | ${ }^{3.86}$ | ${ }^{0.14}$ | ${ }^{1.191}$ | 3．02 |  |
| 1010 | ${ }^{1.76}$ | 3.93 | 1．16 | ${ }^{2} 8.8$ | 5． 28 | ${ }^{2} .48$ | $\frac{1}{241}$ | ${ }^{2.72}$ | 1.71 | 1．09 | ${ }_{1}^{2.88}$ |  |  |
| 1919 | ${ }_{2}^{0.45}$ | 6.13 203 | 2．08 | ${ }^{7} .98$ | ${ }_{2.22}^{1.2}$ | 0．42 | ${ }_{2}^{6.08}$ | 5．90 | ${ }^{0.55}$ | ${ }_{0}^{1.60}$ | 3.92 1.26 | 6．35 |  |
| 1913 | 2.83 | 4．16 | 4．93 | ${ }_{4}^{6.56}$ | 2.75 | ${ }_{2.89}$ | 3.32 |  | 11．96 |  |  |  |  |


| Year－－ | $\stackrel{\text { E }}{5}$ | 宦 | 礏 | $\frac{\dot{E}}{4}$ | 安 |  | 耎 | 易 | $\begin{array}{\|l\|l\|l} \dot{\theta} \\ \hline \end{array}$ | ¢ | 容 | ¢ ¢ | 㝘 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{189}^{189}$ | ${ }^{0} 0.76$ | ${ }_{0}^{1.33}$ |  | ${ }^{0.03}$ | $\frac{1}{2.00}$ | ${ }^{1.39}$ | 1.01 | ${ }^{3.63}$ | ${ }^{3.80}$ | ${ }^{0.05}$ | 0.10 | 100 | 5．50 |
| 189 | ${ }_{0}^{0.50}$ | 3．120 | ${ }_{\text {Tr }}^{\text {Tr．}}$ | ${ }_{1.20}^{\text {Tr．}}$ | ${ }^{2.200}$ | ${ }_{7.20}^{2.80}$ |  | 2．00 |  | ${ }_{3.30}^{2.00}$ |  | ${ }_{\text {7r }}{ }_{\text {7r }}$ | 60 |
| 189 | 1.80 | ${ }_{0} .60$ | 0.10 | ${ }_{2} 230$ | 0.40 | 1.90 | 5.00 | 1.10 | 1．10 | 6.40 | 0.80 | 1.50 | 23.30 |
|  | 1.20 | 1.00 | ${ }^{1.00}$ | 0．50 | 1．60 | 3．00 | 3．30 | 5．10 | 1．00 | 1.10 | 0．40 | 0.210 |  |
| 1390 | 0.30 | 0.08 | ${ }_{0.00}$ | 0.40 | 3.20 | ${ }_{\text {2．50 }}$ | 6．20 | 3．00 | ${ }_{220}$ | ${ }_{0}$ | 2．30 | 2．170 |  |
| 1900 | 0.50 | Tr． | 0.90 | 4．50 | 3.0 | 4.00 | 8.40 | ${ }^{270}$ | 4.90 | ${ }^{3.50}$ | 1．30 | 0.00 | 34．50 |
| 150 | 0 | ${ }_{\text {Tr }}^{1.60}$ | ${ }_{0} \mathrm{Tr}$ | 2．30 | L．20 | T7． | ${ }_{5}^{1.50}$ | 1.50 | 4．00 | ${ }_{27}{ }^{\text {Tr }}$ | ${ }_{260}^{2.50}$ | 0.00 |  |
| 1008 | ${ }^{\text {Tr．}}$ | $\xrightarrow{\text { Tr }}$ | － | 0．33 | 3．20 | 5．10 | 5．70 | 8．20 | 1.20 | ${ }_{\text {27\％}}^{\text {Tr }}$ | ${ }_{0}^{260}$ | 0.20 | ． 30 |
| 190 | 0.00 | 0.30 | 0．：0 | 0.3 | 4．60 | 2.10 | 0.90 | 3.80 | 4.10 | 1.60 | 0.60 | 0.30 | 18.90 |
| 1906 | 1.00 | ${ }_{0}^{1.60}$ | 4．50 | ${ }_{3.3}$ | 3．90 | 4．23 | 6． 2.8 | 3．00 | ${ }_{6}^{4.20}$ | 2．45 | 2.39 | ${ }^{3.35}$ | ${ }_{24.23}^{10.46}$ |
| 150 | 1.6 | Tr | 0．22 | 0.1 | 2.18 | 4．15 | 5.49 | ＋1．37 | 0.17 | 5.81 | 1.10 | 0.79 | 08 |
| 1908 | 0.49 | 0.30 | 0.00 | 2.38 | ${ }_{1}^{5.32}$ | 1．1．00 | ${ }_{1}^{2.29}$ | ${ }_{2} 1.85$ | 1．18 | 0．88 | 1.5 | 0 | ${ }_{17}^{17.61}$ |
| 1909 | 0.19 | 0．10 | 1．15 | ${ }^{0.00}$ | ${ }_{2}^{1.39}$ | ${ }_{2}^{1.9}$ | ${ }_{1}^{1.63}$ | ${ }_{3}^{2.25}$ | 0.55 | 2．45 | 5． 8.9 | ${ }_{0}^{0.60}$ | ${ }_{15}^{17.80}$ |
| 1911 | 0.16 | 4.61 | 0.15 | 2.10 | 0.77 | 1．58 | 3.52 | 0.52 | 1.93 | 1．72 | 0.24 | 1.51 | 19．11 |
| 1912 | ${ }_{0} 17$. | ${ }_{0}^{1.35}$ | 0．75 | 1．00 | 2．15 | ${ }_{8}^{3.59}$ | 1.05 | 4．05 | 3．65 | 1.85 | 0.05 | 0.15 | 20．22 |

Nacogiochen，Nacogdoches County（Elevation 271 Feet）．


ANNUAL RAINFALL RECORDS．
Palestine，Anderson Connty（Elevation 510 Feet）．





Following are the records of temperature for a period of years a MEAN TEMPERATURES．

| 8tations－ |  | g | 蔮 | 苞 | 吉 | $\dot{3}$ | 总 | 客 | 药 | 产 | ¢ | 号 | \％ | 宸 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abile | ${ }^{23}$ | ${ }^{4.3}$ | 48.2 | ${ }_{56}^{56.3}$ | ${ }^{64.7}$ | ${ }_{8}^{720}$ | ${ }^{78.9}$ | ${ }^{82.0}$ | ${ }_{75}^{81.8}$ | 75.2 | ${ }_{5}^{67.9}$ | 56.0 | 49.0 | ${ }_{64.5}$ |
| Austin | 185 |  | ${ }^{36.5}$ |  | 67． 8 | ${ }_{74.4} 5$ | ${ }_{80.8}{ }^{2}$ | ${ }_{83} 8.7$ | ${ }_{828}$ | ${ }_{78.1} 8$ | 68.1 |  | 51．2 | ${ }_{67.4}^{8.2}$ |
| wnsvilie | 16 | 60.8 | 61.3 | 68.1 | 73.1 | 78.0 | 81.2 | 83.0 | 88.2 | 80.6 | 75.4 | 66．6 | 60． 1 | ${ }_{72} 6$ |
| Corpus |  | 53.5 | 57．7 | 64.4 | 70.9 | 76.5 | － | 827 | 88.1 | 79.0 | 72.6 | 63．4 | 56.6 | 70.0 |
| ＋ | 33 | 4.1 | 48.9 | 55.9 | ${ }^{63.8}$ | ${ }^{721}$ | 79.6 | 80．5 | 78．6 | 727 | ${ }^{62.4}$ | 50.9 | 4.8 | 62.9 |
| Fort Mrintosh． |  | ${ }^{55.9}$ |  |  | 2 | 8 |  | 79.9 | 8 | ${ }_{72} 8.7$ |  |  | 529 | 28 |
| Fort Worth | 14 | 43， 4 | 47. | 58.5 | ${ }_{64.8}^{63.2}$ | ${ }_{72.0}^{72.5}$ | ${ }_{80.2} 7$ | ${ }_{825} 7$ | 88．6 | ${ }_{78.1}^{72.5}$ | 63．7 | ． | 47．4 | 64.8 |
| Galvesto | 35 | 52.7 | 55.6 | 62.3 | 68.7 | 75.4 | 80.9 | 83.0 | 82.8 | 79.4 | 2.4 |  | ${ }^{4} 3$ | \％9． 8 |
| Longriew | 10 | 47.3 | ${ }^{49.1}$ | 58．2 | ${ }_{65}^{65.4}$ | ${ }_{72.9}^{73.9}$ | ${ }_{78.9}^{81.1}$ | ${ }_{80}^{83.6}$ | ${ }_{81.9}^{83.4}$ | 77.5 | ${ }_{66.0}^{66.1}$ | 8.2 | ${ }_{48,3}^{48.6}$ | ${ }_{65.5} 6$ |
| Palestine ．． | 29 | 47.6 | 50.8 | 50．1 | 66.2 | 722 | ${ }_{78,7}$ | 81.4 | 81.4 | ． 5 | 67． 1 | 57.7 | 50.0 | 65.7 |
| Paris ${ }_{\text {Pen }}$ | 22 | 45.1 51.1 | 44.1 56.4 | 56．3 | 64.0 69.0 | ${ }_{74}^{72}$ | ${ }^{78.8}$ | － | 882．3 | ． 9 | ${ }_{69.2}^{65}$ | 54．8． 59.2 | 48．5 | 67.9 |



FIOST DATA．

| Stations－ |  | $\begin{gathered} \text { Average } \\ \text { Aidetabil } \\ \text { first kiling } \\ \text { frost in } \\ \text { fall. } \end{gathered}$ | $\begin{aligned} & \text { Arerage } \\ & \text { Adateg } \\ & \text { last killing } \\ & \text { foriting } \\ & \text { fppring. } \end{aligned}$ |  | Latest killing spring． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abliene | ${ }^{23}$ | Norember 15 | March ．．．．15 | October |  |
| Aumarilino | ${ }_{15}^{18}$ | Novembir ${ }^{\text {N }}$ |  | October | May |
| Brownswiie | 15 | Nuvember ${ }^{\text {December }} 18$ | Fcbruary 15 | ${ }^{\text {Novenuber }}$ | M， |
| Corpas Christi | 21 | บecinber 26 | February ：20 | November 33 | Hata |
|  | ${ }^{29}$ | November ${ }^{11}$ |  | Oetober ．．．30 | Amil |
| Fort Worth | 17 | Norember 21 | Mareh ．．． 8 | October ．．． 28 |  |
| Garestion | ${ }_{19}$ | December ${ }^{\text {D }}$ | ${ }_{\text {February }}{ }^{\text {March }}{ }^{3}$ | Wecember ${ }^{4}$ | March ．．．．3 ${ }^{\text {Mabeh }}$ |
| Nacogloches | 11 | Norember 12 | March … 10 | Oituber ．．．．2 | Aprii ．．．．．．13 |
| Panestine ．．．．．．．．．．．． | ${ }_{18}^{28}$ | －Norember ${ }^{\text {Nata }}$ |  | October | 3alch ．．．．30 |
| Paris Antonio ．．．．．．．．．．．．．． |  | （1） |  | November | ${ }_{\text {Appril }}^{\text {A }}$ ．．．．．．12 |

In 1913 Texas harvested over Texas cultivates and harvests ver $2,500,000$ acres of special crops，grasses，truck，fruits，etc．
Texas has $1,138,852$ apple trees， ，737，827 peach trees， 558.478 pear rees． Ther
exas $1,034,000$ milich cows in nd on produces in creamerles $0,000,000$ pounds of butter annual－
and $50,000,000$ pounds during the name period． Texas milch cov
cows average $\$ 39.90$ Texas has 724.000 mules，a great er number than any other Slate． credits Texas Fith a total of Texas horses averase in valu Ti2 per head．They number 1．181，

THOUSANDS OF ACRES MADE

## PRODUCTIVE BY IRRIGATION

Over a vast area of Texas, even in regions of heavy rainfall, the sub. ject of irrigation is receiving consideration by an increasing number of citlzens. The conservation of rain, the saving of the run-off of stream and the development of the underground water supply is making avail. State and adding to the productiveness of many thousands of acres th regions where the rainfall is generally sufficient for all agricultural purposes.
irRigation phacticed
splend made in the beginning has been soil and water resources in all sec-
tions of Texas. In East and Northeast Texas, where the rainfall averages water conservation appeals to but few. In the rice-growing section is a necessity in the producCen of that crop. In Southwest, Central West, West and Northwest, State the development of the water resources, both surface and underactor in the prosperity and mateial welfare of the people. In these sections there is a greater appre-
ciation of the value of water, and lathough many branches of the agd icultural and live stock industry are successfully conducted with th an be secured for irrigation pur poses, it adds value to the lands because of the increase in variety
of crops raised and in acre proction.
Well Defined Districts. Although irrigation is practiced there are several well defined dis-
tricts which stand out prominently above all others because of the acreage under cultivation or because of the large sums of money work. expended in development There are other districts in
Which several thousand acres are watered, reference to which will be found in the statistical table which companies this article.
Rice Growing Area.
section of the State the cultivation of rice is an important industry. from 35 to the rainches, irrigation is necessary for this grain, and in 1913 more than 300,000 acres wer ever, was not devoted to the rice crop, the acreage varying consider able from year to year.
The coast country of Texas lies
in the artesian belt, but in but few instances are wells, either artesian of the crop. The country is travtate, which, with other streams which is distributed to the field by pu

The Artemian Belt.
South and Southwest of San An. onio is a section of country gener cause water from flowing wells is used for irrigation. In 1913 ap watered in this section, either from wells or from streams. Plans for the development of 20,000 addi
tional acres have been announced Cotton, corn, fruits and truck are
the chief products.

> Lower Rio Grande, hat is known as

In what is known as the valley eron and Hidalgo Counties is found one of the most prominent irrigat development of this section dates development of this section date 1913 about 105,000 acres were in
cultivation, with as many more auctivation, with as many mor settlement. The main canals in this Southwest, some of them measur ing 150 to 200 feet in width and from ten to twenty feet in depth Wrater is secured from the Rio
Grande, being ifted by pump ove the river banks and carried by gravity through the canals and alluvial. It is excellent sor sugar cane, cotton, fruit and truck. Win.
ter gardening and truck raising is a prominent industry.
The valley contains between 400 , The valley contains between 400 ,
000 and 500,000 acres capable of 000 and $500,000$.
Upper River Pointm.
Starr County, adjoining Hidalgo, has a large acreage capable of be have been developed. Webb County farther up the river, has under irrigation 3,500 acres, a large portion
of which is devoted to Bermuda
nions and other truck. Maverick of Wetb, has under irrigation 1,280 acres. Val Verde County, also bor-
dering the Rio Grande, has 8,500 dering the Rio Grande, has secured from the
acres. San Felipe springs. Which burst out
from the surface of the prairie near from the surrace or the prairie near
Del Rio with a sufficient flow to
Weter 15,000 to 17,000 acres. These Water 15,000 to 17,000 acres. These
pringe are among the largest in aprings are am
The Ei Pano Region.
Irrigation in the upper valley of
the Rio Grande near El Paso was the Rio Grande near El Paso was before white men set foot upon the American continent. Early Spanish tury discosered the ditches, some of which are still in use. Traces great age were also found by these men. the present time more than 5,000 acres are elther under ditch or have been, but the acreage uner actual cultivation varies from
0,000 to 15,000 according to river conditions.

Elephant Butte Dam. With the completion of the Ele struction by the Federal Govern ment in New Mexico, the valley a El Paso will be supplied with water for 45,000 acres. This project is the Government, the cost approxi
mating $\$ 10,000,000$. Under treat mith Mexico, water will be fur nished for 25,000 acres in that coun try. Texas will be provided with
water for 45,000 acres and New Mexico for approximately 100,000 acres. The ${ }^{\text {dam is }} 1,200$ feet long
at the top, 275 feet high above the foundation and will form a reser41,280 acres, and capable of storing 41,280 acres, a a capable of st
$2,760,00 \mathrm{acre}$ feet of water.

The Pecos Valley of Texas. includes irrigated sections in
Reeves, Ward, Pecos and Crane Counties. The area under irrigation and cultivation in
mated
55,000
acres.
Over approxi-
200,000 mated sre, susceptible to irrigation
acres are
develt with the development and conservation of the present known water resources. ably by further development of the
shallow water belt in Reeves and Pecos Counties.
In the vicinity of Pecos, Reeves
County. is a large shallow water County is a large shallow water
belt. About twenty-five wells were in operation in 1913. The area is known to extend over 75,000 acres.
There is also shallow water in the There is alley, shacos County. In the southern part of Reeves
County is an area known as the
Toyah Valley in which 8,000 acres
are irrigated from the San Solo mountains is another inmense This spring, it is estimated, ca furnish water for an additional .000 acres, although it has neve ts waters ever measured, diverted to the trelds for irrigation purposes. River for a large acreage in Reeves, Ward and Pecos Counties and another project covering. $7,001-2,000$ of which were in cul tivation in 1913 in Crane County
will look to the Pecos River for its water supply. Pecos River for it are found the Comanche Sorings west. These springs give a never varying fow or $55,000,000$ gallon of water per day, which is utilized acres. Springs in the Leon Valley
near Fort Stockton, will add laree near Fort Stockton, will add large section. The construction of reservoirs, ing canals and ditches and the de pelopment of the underground supply, movements now under way in crease the acreage in cultivation within the next few years.
is alfalfa, feedstuffs, fruit, truck is alfalia, melons.

$$
\begin{aligned}
& \text { Texas Plains Country. } \\
& \text { Ten thousand acres of land }
\end{aligned}
$$

Ten thousand acres of land were
in crop and irrigated in the Texas
plains country in 1913. Irrigation in this section is but a arrigation
old. Development work has pro old. Development work has pro-
gressed tar enough, however, to
justify the prediction of a great
future. The plains or Texas are treeless and without visible streams of water. The underground supply,
however, is abundant and irriga:
tion is conducted by indivile howe is, conducted by individual plants, wells and pumps. The aver age depth of these wells is 120
feet but water rises within fifteen
to fifty feet of the surface to fifty feet of the surface, accord. centrifugal pumps at the rate of centrirugal pumps at the rate of
500 to 2,500 gallons per minute, the
flow depending upon the capacity flow depending upon the capacity Tests have been made for mand many
consecutive hours and thus far the consecutive hours and thus far the
machinery employed has been unmachinery employed has the water or materially lower its level. One wall
of the largest capacity in use is of the largest capacity in use
sufficient to care for 160 acres. Dest corner County, in the southWest corner of the Panhandle proper, and Hale county, in the
Plains, show greater progress in
the development of their under the development or their underground water resources than other
counties in this section. Between

4,000 and 5,000 acres in each county was in crop and under irrigation in 1913. The season of 1914 will probably witness this acreage more than doubled.

The shallow water belt extends under a very large territory, no one knowing even approximately the acreage. Wells are in operation in Deaf Smith, Hale, Bailey. Lubbock, Swisher, Andrews, Gaines, Floyd and many other counties, which of itself provies the belt to be extensive. This same water is found under all Panhandle and Plains counties, an area equal to that of the State of Illinois, but the depth varies, and in many sections it is too deep for economical irrigation with the equipment now in use.

The water secured from these wells is practically pure and soft. There is but little mineral in the soil and the dangers from overirrigation are considerable less than in other sections.

The crops grown by irrigation are alfalfa, wheat, Kaffir corn and maize, melons, apples, grapes and other fruits.

## In Medina County.

A dam across the Medina River eleven miles north of Castroville, Medina County, was completed during 1913, and the reservoir back of it, capable of storing $19,385,000,000$ cubic feet of water, made ready to collect the drainage of a large area of country. Water from this great reservoir will be conducted by canal to a tract of 60,000 acres in Medina County. The dam, canals, lands, etc., were constructed and purchased at a cost of over $\$ 6,000$,000. It is one of the largest single irrigation projects in the Southwest. The dam is 164 feet high above the river bed and from the bottom of the cut off trench to the top of the concrete has a total height of 180 feet. The erest length is 1,580 feet, base width 128 feet and crest width twenty-five feet. The spillway is 1,200 feet long and the cubic contents equal to 90 per cent of the famous Roosevelt dam in Arizona.

## Other Irrigation Districts.

Development of irrigation is found in widely scattered sections of the State. At Midland shallow water development is under way. In Wichita County 2,800 acres are cultivated and watered. In Hardeman about 4,000 acres are under ditch. Menard County has 7,365 acres, San Saba 3.200, Tom Green 4,960 and many other counties from 500 to 2,500 acres. A statistical table giving acreage under irrigation in the various counties of the State is attached to this article.

## New Development work.

During the year 1913 announcements were made through the
newspapers of many new irriga. tion projects, some of which undoubtedly will materialize in the near future. Operations in the shallow water belt in the Plains country give indication of increas. ing the acreage to 100,000 within a few years. The artesian belt in Dimmit, Zavalla and La Salle Counties is being rapidly developed. Announcement has been made of several large irrigation projects in Pecos and Presidio Counties and surveys have been made in Runnels County for daming the Colorado River and watering a large body of land. In various other counties of the State, particularly in Central West and West Texas, the people are alive to the subject of water development and waterconservation.

## Federal Census, 1910.

The United States census for 1910 gives the following irrigation statistics for Texas:

Acres in rice....................... 286.847
Other irrigated acreage............ 164.283
Total acres irrigated.......... 451.130
Rice acreage capable of irriga-
tion, present enterprises........
Other acreaze capable of irriga-
tion, present enterprises........ 340,641
Total............................ 630, 801
Rice gereage included in projects 499,474 Other acreage included in projects $\mathbf{7 5 3}, 6.59$

Total. . . . . . . . . . . . . . . . . . . . . . . . 1,263,173

## Statistics for 1913.

Rice acreage irrigated............ 304,436
Other acreage irrigated............... 26y,it5
Total. . . . . . . . . . . . . . . . . . . . . . . 5 574,151
Total acreage capable of being
irrisated by present systems...1,06s, 8 so Acres irrigated, T1910............... 451.130 Acres irrigıted, 1r13................ 54, 54,151

Increase. . . . . . . . . . . . . . . . . . . . . 123,021
COUNTY STATISTICS, 1913.
Acres
Within

| County- | Acres <br> Irrigated. | Reach of Present Systems. |
| :---: | :---: | :---: |
| Anderson | 100 | 100 |
| Aransas | 200 | 200 |
| Atascosa | 3,000 | 10.0以6 |
| Austin |  | 2,000 |
| Fandera | 200 | 200 |
| Bastrop | 250 | 250 |
| Bexar | 2,000 | 3,000 |
| Borden | $\underline{20}$ |  |
| Bosque | 100 | 100 |
| Rrazoria | 2,000 | 2,000 |
| Brewster | 500 | 800 |
| Briscoe | 50 | 50 |
| Frooks | 50 | 100 |
| Brown | 3,000 | 3,000 |
| Burnet | 50 | 50 |
| Calnoun | 5000 | ${ }^{79} 500$ |
| Cameron | 45.250 | 79,000 |
| Chambers | 29.650 | 35,000 |


| County County- | Statisties, 1918 <br> Acres Irrigated. | Cont. Acres Wlthln Reach of Present Systems. | Greatest Irrigation Projects. <br> Following are the Department of Interior figures on the world's greatest irrigation dams and irrigation projects: |
| :---: | :---: | :---: | :---: |
| Coleman |  | 300 |  |
| Colorado | 24,500 2,600 | 30.000 |  |
| Comanche |  | $1100$ |  |
| Concho | 600 | 500 | Where Located- E¢ |
| Cooke | 1,000 | 1,000 |  |
| Crane | 2,000 | 7,000 |  |
| Dear Sm | 4,160 | 6,800 | Elephant Butte, N. M..... 1.125 265 [2.760.000 |
| DeWitt |  | 260 | Assouan, Egypt ........... 6,562 141 1.860.000 |
| Dimmit | 6.000 | 8.000 | Roosevelt. Ariz. ........... 1,080 280 1.224.000 |
| EL Paso | 15,000 | 20.000 | Pathfinder, Wyo. ........ ${ }^{\text {a }}$ ( 432 218 1,025.000 |
| Falls | 400 | 1,000 | Rio Conchos, Mexico...... 853 208 $1,000,000$ |
| Floyd | 500 | 500 |  |
| Fort | 5,437 | 50,000 | Periyar, India ........... 1.231 178 305,300 |
| Frio | 2,000 | 3,000 | Aghti, India .............. 12,709 58 32,660 |
| Galveston | 575 | 800 |  |
| Glasscock |  | 100 |  |
|  | $\begin{array}{r} 100 \\ 25 \\ 20 \end{array}$ | $\begin{aligned} & 100 \\ & 500 \end{aligned}$ | IRRIGATION OF RICE. |
| Guadalupe | 90 | 250 | The following is the United |
| Hale | 4.300 | 5.040 |  |
| Harris | 23,558 | 35,000 | States census report on rice irri- |
| Hays | ${ }^{6}{ }^{600}$ | 1,200 | gation in Texas for 1910. The acres |
| Irion.. | \$0,000 | 82,500 | irrigated per mile of main ditch |
| Jack | 100 | 1,000 | was 533.2. These figures will prove |
| Jackson | 12,091 | 15,000 | was |
| Jeff Dav | 73,303 | 3.000 150,040 | approximately correct for 1913. |
| Karnes | 175 | 300 | Independent enterprises,........number 611 |
| Kımble | 3,800 | 8,000 | Ditches, total length................miles 1,040 |
| Einney | 800 | 12,000 | Main ditches.................number 225 |
| Lampasas | 450 | 560 | Length $\quad$.....................miles 538 |
| LaSalle | 5,000 | 10,000 | Lateral ditches...............number 216 |
| Liberty | 11,400 | 40,000 | Lergth $\ldots \ldots \ldots \ldots \ldots . . . . . .$. miles 502 |
| Live Oa | 25 | 100 | Reservoirs .....................sumber 21 |
| Luanu | 65 | 250 | Capacity ...................acre-feet 2,310 |
| Loving | 500 | 500 | Flowing wells..................number 1 |
| Lubbock | 200 | 740 | Capacity $\quad$........gallons per minute 80 |
| Martin | 150 | 150 | Pumped wells..................number 500 |
| McLennan | 200 | 200 | Capacity $\ldots$.......gallons per minute 445,495 |
| Mason | 100 | 209 | Pumping plants.................number 575 |
| Matagorda | 55,095 | 75.000 | Engine capacity...........horsepower 48,179 |
| Maverick | 1,280 | 8,570 | Pump capacity.....gallons per minute 3,997,380 |
| McMulien | 15 | 15 |  |
|  | 7,365 | 8,365 | Cost enterprises up to July 1, 1910.. $\$ 6,140,639.00$ |
| Midland | 50 | 250 | Average cost per acre enterprises |
| Milam | 50 | 50 | capable of irrigating in 1910..... 17.53 |
| Mills | 1,075 | 1,200 | Estimated final cost of existing en- |
| Mitchell | 115 | 400 | terprises .......................... 6,140,639.00 |
| Motley | 50 | 500 | Average per acre included in |
| Nacogdoches | 50 | 50 | projects ......................... 12.29 |
| Nueces | 1,700 | 2,500 |  |
| lanam |  |  |  |
| Orange | 16.127 | 25,000 | A CURE FOR MOSQUITOES. |
| Pecas | 17,680 | 45,000 | The people of London have |
| Preasan | 1,00 | 1,000 | learned of an agreeable way to |
| Reeves | 20.000 | 75,000 | keep their houses free from flies |
| Refugio | 150 | 200 | and mosquitoes, according to a re- |
| Runnels | 2,500 | 2,500 | cent dispatch from that city. They |
| San Sa | 3,200 | 3,200 | burn sandalwood, which has a |
| Scurry | 100 | 100 1.000 |  |
| Starr | 100 1,000 | 1,040 1,000 | summer pests much dislike. The |
| Sterling | 255 | 5,450 | idea comes from the Orient, where |
| Taylor | 500 | 5,000 | it has long been practiced. |
| Travis Green | 4,560 | 10,000 | The sandalwood can be bought |
| Uvalde | 2,000 | 5.009 | at almost any Turkish or Japanese |
| Val Verde | 8,500 | 15,000 | importing house. You prepare it |
| Van Zandt | 100 | 100 | for burning by cutting it into |
| Victoria | 500 | 500 | pieces about half an inch thick |
| Ward | 15,000 3,500 | 60,000 | and three inches long, and then |
| Wharton | 50.200 | 50,209 | bake or dry it in a slow oven for |
| Wichita | 2,800 | 2,800 | twenty-four hours. You light a |
| Whacy | 500 | 500 | piece of the wood and put it in a |
| Williamson | 100 | 500 | metal urn, or saucer. After it has |
| Winkler | ${ }^{100}$ | 500 3.000 | ignited well blow out the flame |
| Young | 3,000 2,500 | 3,000 4,000 | and leave the red ember to smolder |
| avalla |  | 4,000 | until tife wood is wholly consumed. |
| Totals. | .574,151 | 1,063,880 | -Youth's Companion. |

## RECLAMATION OF SWAMP AND OVERFLOW LANDS

## (By Arthur Alvori Stiles, State Rectamation Engineer.)

The swamp and overflow lands of Texas exczed in extent the combined areas of the States of New Jersey and Connecticut. The swamp lands are situated principally in that part of the State known as the Coastal Plain. The overflow lands constitute the low valleys or "flood plains" of the several streams which traverse the eastern quarter and southern portion of the State. The total area of the swamp lands is con. servatively estimated at $5,000,000$ acres, that of the overflow lands at $3,000,000$ acres. These lands are not the property of the State nor of the United States. They are owned by private individuals, and lie in tracts of irregular shapes and varying sizes, which as a rule contain swamp and overflow land and high land.

## RECLAIMED HANDS

 VERY PRODUCTIVEThe productiveness of swamp lands after being properly reclaimed is far above the average of farm property in other parts of the State, and they are located in a section where the seasons are most favorable to general agriculture. The overflowed lands are recog:nized as the richest to be found in Texas. They are formed by alluvial deposits of great depth, and during periods when floods do not occur they usually produce at least a bale of cotton to the acre.

Value of Lands.
The market value of the unimproved swamp land ranges from $\$ 10$ to $\$ 25$ per acre; that of the unprotected overflowed lands from $\$ 10$ to $\$ 40$ per acre, according to location, need of drainage or severity of overflows. The cost of reclaiming the $s w a m p$ lands varies from \$5 to $\$ 25$ per acre; the overflowed lands from $\$ 15$ to $\$ 40$ per acre. Consequently, the final total cost after being adequately reclaimed and protected varies from $\$ 15$ to $\$ 50$ per acre for swamp lands and from $\$ 25$ to $\$ 80$ per acre for overflowed lands. It is the general conclusion among practical farmers that the value of such lands after being so reclaimed or protected runs from $\$ 50$ to $\$ 75$ per acre for swamp lands and from $\$ 60$ to $\$ 100$ per acre for overflowed lands, and that one or two crops in the swamp areas will pay for the necessary reclamation improvements and two crops saved from overflow will more than pay for flood protection adequate to last a lifetime.

## Improvement Methods.

The $s$ wamp lands are reclaimed by means of drainage, effected by improving the capacity of the natural water courses and supplementing them by canals and lateral ditches. The overflowed lands are protected from the periodical floods
in the rivers by means of simple earthen embankments called levees, built along the meandering main stream channels adjacent to the channel banks. The levees increase the height of the channel banks and thereby enlarge the capacity of the streams so that the floods do not spread out over the valleys.

## Progress of the Work.

The reclamation of the swamp and overflowed lands of Texas began with the passage of the general and amended levee and drainage laws of 1909 and 1911. In the short time since the enactment of these statutes an exceedingly small proportion of these lands has been reclaimed, but the practical application of the reclamation laws and the feasibility of the work from an engineering standpoint have been fully demonstrated, and it is universally conceded that no greater opportunity for profitable investment offers in Texas today than the development of these virgin lands.

## Encouraged by Lav.

The laws above referred to and now in effect authorize the Commissioners' Courts of the several counties to form drainage and levee districts, which may issue bonds to pay for the necessary reclamation improvements. A district may be created if two-thirds of the rreehold property taxpayers actually residing within the proposed district vote for its estabifshment. By constitutional provision only such persons are qualified to vote. Copies of these laws may be had on application to the Secretary of State, Austin, Tex.; price by mail 35 c per copy.

## Securing Surveym.

The necessary surveys for the designing and marking out of drainage and levee improvements may be made in two ways. First, as provided in chapter 85, General Laws of 1909, and chapter 118, General Laws of 1911, a private engi-
neer may be employed at the expense of the proposed district at a compensation not exceeding $\$ 10$ per day. Second, as provided in chapter 145, General Laws of 1913, a complete topographic and hydraulic survey may be made by the State Reclamation Engineer, and the improvements may be marked out upon the ground in the manner best calculated to safely protect the interests not only of the individual district in question, but of the entire valley adjacant. In any event, however, the law of 1913 requires that all levee and drainage districts prior to the approval of their bonds by the Attorney General must file in the office of the State Reclamation Engineer at Austin a complete record of their organizations, together with plans of improvements, maps, proriles, estimates and engineer's reports.

## Surveyed by State.

The extensive and accurate survey work now being done by the State Reclamation Department is available free to any proposed district, but after the territory has been surveyed, the district fully organized and its bonds have been sold the present law requires the district to reimburse the State to the extent of the actual cost of the survey, it being the duty of the State Reclamation Engineer to keep an accurate account of all expense and to make a correct proportionate division thereof among the several areas to be reclaimed. By this means the proposed districtsare relieved of the burden of advancing private funds for the surveys and preliminary engineerng work. In addition to this advantage, the State Reclamaticn Engineer is authorized to secure the co-operation of the Federal Government in doing all of the riclamation engineering work. In the past material assistance of this kind has been obtained, hence the ultimate expense to the districts for such work is far less and the extent and accuracy of the surveys is far greater than would be possible under the other statutes cited above.

The services of the State Reclamation Engineer in an advisory capacity, either independently or in co-operation with the district engineer, are also at all times available free to the several districts throughout the State, and his services in such capacity are extensively utilized.

Mueh Work Aecomplished.
The present State Reclamation Department is the result of a rapid but substantial development from the co-operative topographic survey act of 1909. Since the establishment of the department not less than forty levee divisions have been completely surveyed and mapped and the necessary improvements designed. This work is represented by detailed topographic and hydrographic maps of high order, which cover more than 100,000 acres of overflowed land in various parts of the State. The general and engineering features of levee building in Texas are thoroughly discussed in a State publication entitled the "First Technical Report of the State Levee and Drainage Commissioner on the Reclamation of the Overflowed Lands," which accompanies the above-mentioned maps, and, like them, is avallable free to the public until the edition is exhausted on application to the State Reclamation Engineer, Austin, Tex.

## Floods and Leveem.

Prior to the establishment of the department in 1909 the floods in the various rivers of the State had been frequent and severe, those of 1908 being generally the highest of record. But from 1908 to the summer of 1913 ensued a period of remarkably dry years, during which no floods occurred. Naturally this fact practically put a stop to levee building for a time, but since the floods in North Texas in July and those in Central and South Texas in October, 1913, many new districts are now being formed.
The State Reclamation Department can not undertake to furnish information concerning ownerships, titles and market values of swamp and ceverflowed lands in Texas further than is indicated upon the official maps and reports of the department. Requests for data of this nature should be addressed to the individual land owners or to real estate dealers throughout the State.

The following is a complete list of the several drainage and improvement districts, showing dates of organization, cost of improvements (bond issues) and taxable area of each district, including the acreage reclaimed, as now of record in the office of the State Reclamation Engineer at Austin:

THKAS IMPROVEMENT DESTRICTS.


## INTERSTATE HIGHWAYS.

Interest in road construction is Nation-wide. Many thousands of iriles of interstate highways have ween planned and logged, several of which will cross Texas. Chief among these highways are the Colorado-to-the-Gulf and the allSouthern highway to the Pacific Coast. Several routes have been announced and logged, but thus far actual construction work has not started except in sections where county roads will become a part of the through route. Many counties of Texas have shown an interest and have announced willingness to issue bonds for their portion.

Gypsies introduced the practice of palmistry into England. This appears from a statute of 1531, called an "Acte concerning Egypsyans," which recites that "afore this tyme dyverse and many outlandysshe People, callyne themselfes Egyptians, using no crafte nor faicte of marchaundyse, have comen into this Realme and gone from Shire to Shire and Place to Place, and used greate subtyll and crafty meanes to deceyve the people that they by palmestre could tell menne and womens fortunes, and have by crafte and subtyltle deceyved the people of their money."

## STARTLING TOBACCO STATISTICS.

The American people are now firmly established as the greatest smoking Nation in the world, according to statistics published by the United States Tobacco Journal. More than $10,000,000,000$ cigarettes were manufactured and sold in this country during the year, without counting several billion more that were tax-exempt because rolled by the smokers themselves.

Taking the length of the average cigarette as three inches, the total consumed by the United States in a year, if laid in a straight line, would girdle the globe nineteen times.

Taking the population of the country at $90,000,000$, every man, woman and child has averaged during the past year 100 cigarettes, 80 cigars, 13 small cigars and four pounds of smoking tobacco in pipes or hanãrolled cigarettes.

The total number of cigars smoked last year is given as $7,270,-$ 000,000 , an increase of $200,000,000$. The number of little cigars was $1.200,060,000$ an increase of 160 ,000,600 . The cigarette census shows an annual increase of 1,200 .$\mathbf{i 0 0 , 0 0 0}$.

# AGRICULTURE, GREATEST OF <br> ALL TEXAS INDUSTRIES 


#### Abstract

\section*{DEVELOPING SOIL <br> RESOURCES OF TWXAS}


One who undertakes to know Texas and appreciate its present great ness and future possibilities must acquaint himself with all the phases of the agriculture industry He must study the forces which are raising farm life to higher planes. He must familiarize himself with the progress inade in solving market problems and with the work of educating the producer along scientific lines. The attention of Almanac readers is called to the various subjects treated in this and following sections and to the sections immediately preceding it. Also to the statistical data and comparisons, which will be found invaluable as an index to the forward movement in the development of the State's soll resources.

While the land area of Texas upproximates $167,934,720$ acres. of wibich amount $120,000,000$ arres or more are tillable under proper handling and only $30,000,000$ acres improved, the agricultural setelopment of the state depends as much, even more, upon securing the maximum acre tonnage as it does upon extendins the industry into unoccupled sections and increasing the number of acres cultivated. Less than one-fourth of the tillable land is put into crop annually. It may be many dacades before the State will average with Iowa. Illinois, Indiana and Ohio in the percentage of land under cultivation. The giory of the agriculture industry of Texas, however, depends upon intensive rather than extensive farming.

The citizens of Texas are awakening to the importance of raising the standard of farm life; to the necessity of solving the market problems; to the value of country iransportation and to the great need of conserving the soll elements, improving soil fertility and increasing acre production.

## DEMONSTRATION FARHING.

Increased yields and better cuality of products in all sections of Texas are resulting from demonstration and co-operative farming as conducted by the Texas Industrial Congress, the Department of Agriculture of the United States, of Texas and by the A. \& M. College through its experiment farms.

The Farmers' Union, the Farmers' Congress, various agricultural and live stock organizations, commercial secretaries, Farm Life Commission and the agricultural daily and weekly press of the State are all doing splendid service in promoting the development of the State's greatest resource-the soll.

Making the Soll Pay.
Every year shows an increasing number of farmers, boys and girls interested in scientific methods of
production. The figures for 1913 follow:

## Industrial Congress report:

Number of demonstration farms...11,815
Number of counties represented.... 215 Federal Government demonstration work:
Number of demonstration farms. . . . 6,010
Number of co-operative farmers....15,644
Boys in corn clubs........................10,375
Boys in cotton clubs.................... 1,200
Boys in Kaifir corn clubs.......... 475
Girls in canning clubs................ 1,500
Total. . . . . . . . . . . . . . . . . . . . . . . . . 36,104
Grand total. . . . . . . . . . . . . . . . . . . . . . . . .47,019
Number of counties having Gov-
ernment demonstration farms....
04
TEXAS INDUSTRIAL CONGRESS.
Among the most important fac. tors in the development of the industry of agriculture in the State is the Texas Industrial Congress, of which Col. Henry Exall is the president and leading spirit, and whose motto is, "For a Greater Texas-Smaller Farms; Better Farming."

The Texas Industrial Congress. supported by contributions from citizens, has completed its third year of activity. For three seasons it has successfully interested thou. sands of farmers in its contests and has demonstrated in all sections of the State the necessity of conserving soil resources, for returning to the soil the elements taken away by overcroping and has proved beyond a doubt that proper plowing, crop rotation and cultivetion Will increase the acre yield from 1 to 300 per cent.

## Methods Employed.

To secure immediate attention and to add to the interest of the contest the Texas Industrial Congress offers $\$ 10,000$ in gold, to be distributed as prizes among those who conform to conditions and produce results. Every contestant is furnished with instructions relative to the contest and receives from time to time encouragement and instruction as to methods to be followed in the way of tracts and pamphlets bearing upon the crops to be raised and upon agriculture in general.

In addition to arranging the contest and instructing farmers in proper methods by sending them letters and printed matter, Col. Exall fills many engagements, speaking to thousands under various circumstances and conditions and addresses the boys and girls in the schoolhouses, his subject and theme always the same, "Smaller Farms and Better Farming."

## The Results obtained.

The interest manisested in the work of the Congress is more than Statewide. It is impossible to sum up the results, for the seed thus planted will be bearing fruit during generations to come.

Immediate results, as concerns the yields secured by contestants, are of record. The fact that during the first two years of contest the seasons in Texas were below normal, particularly as to corn, makes the records of greater significance.

In 1911, the first year of activity for the Industrial Congress, there were 1,746 contestants, representing 161 counties, cultivating a total of 5,400 acres under instructions. During that year the State produced an average of 9.6 bushels of corn and less than one-third of a bale of cotton per acre. The contestants produced an average of thirty-one and a half bushels of corn and six-eighths of a bale of cotton per acre.

In 1912 the contestants numbered 4,030, representing 205 counties. The State average on corn was twenty bushels per acre and on cotton eleven-twenty-fifths of a bale per acre. The contestants averaged fifty-one bushels of corn and 1.04 bales of cotton. The average on Kaffir corn and maize was twenty-two bushels per acre and the average for the contestants 70.6 bushels per acre.

During 1911 prizes were won in seventeen counties. In 1912 prizes were won in fifty-five counties, sixteen of the seventeen that wor in 1911 winning again in 1912 . Results of the 1913 contest were announced too late to appear in this publication.

## Splendid Demonstration.

The results obtained are not confined to the few acres, comparatively speaking, that are entered in contest. There is undisputed evidence in all sections of the State that those who have tried for prizes are continuing on a much larger scale the practice of correct farming methods, and that their success in securing large yields under adverse circumstances has encouraged their neighbors to follow their example.

## GOVERNMENT DEMONSTRA. TIONS

Ninety-four counties of Texas contribute toward the support of Federal agricultural agents, who devote their time to instructing farmers in proven ways of increas. ing acre yields, in the cultivation of new crops and in soil conservation and reclamation. These agents as a rule secure small tracts for demonstration work and as many co-operative farmers as possible, who agree to cultivate their lands, or at least a portion of them, ac. cording to instructions.

In addition to oral instructions and demonstration work, farmers are supplied with bulletins of value and of interest to them in the operation of their farms.

The interest in this class of work is widely distributed and growing more important each year. Government agents frequently have of. fered them a greater amount of land for demonstration work than they can handle and more co-operative farmers than they can oversce properly. Their work is resulting in a better understanding of conditions and in a more general application of proper methods in the production of all staple crops and in the handling of live stock on the farm.

## Texas Experiment Stations.

The work of the Texas experiment farms during the last few years has resulted in the addition of much valuable data concerning kinds of crops most profitably grown and how to grow them. The improvement of these farms and additional equipment is one of the advanced steps taken by the State government in lending its aid in the development of the soil resources.

There are ten stations and farms under the superintendency of Prof. Youngblood, director, a member of the A. \& M. College faculty. These stations and farms are located in various sections of Texas in order to take advantage of the varying conditions in working out the problems which are presented to the producers.

The station at Beaumont is paying special attention to the problems confronting rice growers; testing out various kinds of rice and new methods of handling soils and crops. This station also pays some attention to citrus fruits, cotton, corn and other coastal prairie crops.

The station at Angleton also gives some attention to rice, but makes a specialty of citrus fruits. other fruits and seneral farm cinps as grown on the coast.

Beeville, almost on the edge of the light rainfall region, bit in a splendid truck and fruit growing section, has a station where spe-
clal attention is given to those crops as well as staples.

The Nacogdoches station is experimenting with tobracco, but also devotes some time to East Texas fruits and staples.

At Troup the possibilities of typical East Texas sandy land is under investigation, East Texas fruits, ruck and staple crops being subjects of various experiments.
The recos station is located in an irrigated section of high altitude, and irrigated crops, such as alfalfa, grains, cotton and fruits are the subjects of special study.

The Spur station is located just below the cap rock in a region of comparative light rainfall. Here the work is along dry farming lines and splendid results are being oktained.
At Lubbock, on the Plains, dry farming experiments are also conducted, but much attention is given to the grain crops. Irrigation from individual plants forms part of the work.
At Denton, North Texas, special work in the growing of grains is producing satisfactory results. Some attention is also given to other staples.
The Temple station is located in the lower black land belt, where problems affecting cotton growing are being solved. Other staples best grown in the black lands are subject of experiment, both field crops and horticultural products.
Results of experiments, calculated to be beneficial to the agricultural industry of the State, are published in bulletin form from time to time and distributed free to farmers and others interested. The work of the stations thus far has been productive of excellent results and further expansion along lines already drawn is strongly recommended by citizens In close touch with the necessities of the industry.

## A. \& M. COLLEGE.

The Agricultural and Mechanical College of Texas is contributing largely to the work of increasing the importance of the agricultural industry in the State. Interest in this institution is widespread, and although there is a difference in opinion concerning its control, its value to Texas is generally recognized.

Although instruction is given in military tactics, engineering and in various other subjects not directly connected with farm work, the agricultural course embraces a wide range, giving to students every advantage of scientific training in practical farm and orchard work, live stock farming and kindred subjects.
The correspondence courses and Digitized ford sesstons for practical farmhttp://fraser.stlouisfed.org/
ers are well patronized and are having a wide influence in promoting better farm methods.

## Various Courses Offered.

Division of Chemistry-Instruction is given in soil investigations and in analyses of feed and forage stuffs as to the relative digestibility and nutritive value.

Veterinary Department-In this department students are given a regular course of instruction in diseases of animals, methods of treatment and the eradication of animal insect pests. The investigations of this department have resulted in discoveries of almost inestimable value to the live stock industry of the State.

Division of Entomology-Investigations are made in this department, the results of which are beneficial to all sections of Texas. The study of insect habits and methods of combating their destructive powers on fruit and field crops continue throughout the year.

Horticultural Division-Work is performed in plant breeding, budding, grafting, care of orchards and the propagation of new plants and fruits.
Plant Pathology-This division has under way an investigation of the relation of soil types to the quantity of nitrogen tubercules produced by different legumes and the study of plant diseases. The work, when completed, will quickly prove to be of the utmost value to the agricultural industry of Texas.

Division of Agronomy - This division deals with the theory and practice of crop production and the scientific management of lands.

Animal Husbandry-Thus far the work in this department has been confined to feeding experiments and with different combinations of Texas feedstuffs. The work is important and will be extended.

## TEXAS FARM LIFE COMMISSION

The Texas Farm Life Commission was organized by the Texas Commercial and Business Men's Association. The object of this organization is to raise the standard of farm life, make it more attractive by making it more profitable. The market problems confronting the Texas producers is under thorough investigation. The commission also advocates better social conditions in rural districts, more and better schoolhouses, better farm homes for both farm owners and tenants and more attractive surroundings.

The commission is composed of prominent citizens of the State, who are active in the work assigned them. They are: S. A.

Lindsey, chairman, Tyler; Mrs. E. P. Turner, Dallas; Peter Radford, Fort Worth; Joe Hirsch, Corpus Christi; S. D. Steedman, Hagerman; G. B. Dealey, Dallas; E. J. Kyle, College Station; E. W. Kirkpatrick, McKinney; Prof. A. CasWell Ellis, Austin; H. Laas, Brookshire; R. J. Kleberg, Kingsville; Edward W. Knox. San $\operatorname{An}-$ tonio; W. W. Procter, College Station; C. W. Post, Post City; Edward Chamberlain, San Antonio; J. T. S. Gant, Wichita Falls.

## ORHER IMPORTANT FACTORS.

Among other important factors in the development of the agricultural resources of Texas are the following:

The Farmers' Union-This is an organization of farmers working for better agricultural development, better markets and better farm life. Its work is indorsed by all citizens. It is one of the strongest organizations of the State.

The Farmers' Congress; President, EE. W. Kirkpatrick-The congress meets at A. \& M. College annually. Various subjects relating to agriculture, live stock, dairying and kindred lines of industry are discussed. Numerous agricultural organizations also hold their annual meetings during the session.

Agricultural and Live Stock Or-ganizations-Every branch of both industries is organized and much good work toward improving methods of conducting the industry, marketing, etc., is accomplished.

Commercial Secretaries - The commercial secretaries throughout the State, representing the business interests, are co-operating with the farmers.

Newspapers and Other Publica-tions-No single industry receives more space or a greater consideration at the hands of the press than does agriculture and kindred lines. Publishers realize that the soll is the greatest natural resource of the state.

THEAS DEPARTMENT OF AGRICULTURE

The Texag Department of Agriculture was created by an act of the Thirtieth Legislature, approved April 4, 1907. Entered upon the discharge of its duties Sept. 1, 1907, with Col. R T. Milner as Commissioner, who served until succeeded by the present Commissioner, Hon. Ed R. Kone, Sept. 12, 1908. J. C. Lindsey, chief clerk; Sam H. Dixon, chief inspector of orchards and nurseries; Ernest E. Scholl, entomologist: E. A. Miller,
plant pathologist and assistant entomologist; J. W. Neill, director of farmers' institutes; William Connally, J. E. Edmondson, Paul Wipprecht, B. L. Nance, R. L. Taylor and Thomas A. McGalliard, regular farmers' institute lecturers and organizers; James Kilpatrick, chief clerk of cotton bureau: J. K. Thompson, mailing clerk and clerk in cotton bureau; E. H. Loughery, statistician and general clerk; Miss Mary Thompson and Mrs. M. D. Wyatt, stenographers.

## Features of 1913.

Notable features of the work of the department during the year 1913 were: Nursery and orchard inspection; control of insect pests and plant diseases; organization of baby beef clubs; arranging for and holding the third annual farmers' Institute at College Station; field demonstrations; Issuance of twelve bulletins of value to farm ers and other agriculturists; performing the function of a bureau of information for people engaged in every branch of agriculture in the State through letters, press notices and otherwise; supplying, on request, information of every sort about Texas to newspapers and correspondents in Texas and over the United States by data sheets and signed articles; alding in work to solve the problem of evolving better systems of marketing the products of Texas farms, gardens and orchards, and last, but not least, organizing and supplying with lecturers and literature farmers' institutes. The following statement, covering the period from June 30, 1912, to June 30, 1913, gives a sumimary of the farmers; institute and similar work done:

## Number of Inditatem.



In addition to doing the above work, institute lecturers of the department constituted part of the instruction corps on five railroad farm demonstration trains that covered an aggregate of 5,000 miles, made 250 stops and drew an attendance of farmer listeners that aggregated 109.100.

The farmers' institute force also dellvered addresses on agriculture at most of the county fairs to audiences aggregating not under 100.000 persons.

## PRODUCTION STATISTICS OF LEADING TEXAS STAPLES

Although cotton is the leading field staple of Texas, a diversity of climate, altitude, rainfall and soil permits the growth of a great variety of staple products. In 1912, the latest year for which complete statistics are obtainable, Texas lead all other States in the Union in the total value of its agricultural products. Better methods of farming is increasing the average acre yield of the State and this feature of the industry, combined with increasing population and a greater acreage, favors a continued leadership in production values. In this section readers will find the latest statistics of crop production. In all cases, where possible, official figures are used.

## SECOND TO NONE IN <br> VALUE OF PRODUCTS

Texas is the first State in the Union in the value of its agricultural products. The Census Bureau figures for 1912, taking into account leading field staples only, estimates the value of the agricultural products of Texas at \$407,160,000 , with Illinols second with $\$ 289,326,000$.

Following is the bureau's statement of agricultural values of 1912 for the ten leading States: Texas $\cdots \cdots \ldots \ldots . . . . . . . . . . \$ 407,160,000$ Illinois ….....................................284,326,000 285




Georsta ${ }^{\text {North }}$ Dakota......................... 159,110,000
North Dakota................. 1 .
The total for Texas has reference to leading field crops only. The total value of all soll products of Texas for 1912, the latest year for which reliable figures are avallable, reaches rearly $\$ 600,000$,coo. The following statistics were taken from the inited States agricultural yearbook for 1912, except those for cotton, which data was taken from census report for 1912. Estimates on products for which no official data is obtainable are indicated thus (").
Product.


## COTPION, KING OF ALL

 TEXAS FKELD CROPSCotton is the king of all Texas field crops. Natural conditions over a very large area of the State are favorable to cotton, and although farmers are diversifying. the acreage is maintained, while the production is increased. As the United States leads the world in the production of this staple. so does Texas lead the United States, producing in 1912 approximately one-third of the total crop of the country.

## Cotton Statistics.

Official statistics relative to the production of cotton for 1913 are not avallable. They will not be issued in detall by the Census Bureau, Department of Agriculture, earlier than June, 1914. Therefore, it is necessary to confine production statistics to the 191213 crop, or the 1912 growth, except as to such estimates of 1913 crop as come from reliable sources.

Henter's Report, 1812 Crop.
(Including Linters.)
The total cotton crop of the United States for the season of 1! 12-13 as shown by the official statement of Secretary H. G. Hester of the New Orleans Cotton Exchange was $14,167,115$ bales.

Overland shipments..................1,100.414
Southern consumption (net)...... 2, 877,030
Total crop. . . . . . . . . . . . . . . . $\overline{14,167,115}$
Acreage and Production, 1912.

|  | Acres | Production 500-Pound Bales, Linters |
| :---: | :---: | :---: |
| States- | Harvested. | Excluded. |
| United States. | 34.283,000 | 13.703,421 |
| Alabama | 3,730,000 | 1,342,275 |
| Arkansas | 1,901,000 | 792,048 |
| Florida | 224,000 | 52,760 |
| Georgia | 5,335,000 | 1,776,546 |
| Louisiana | 929,000 | 376,096 |
| Mississippi | 2,889,000 | 1,046,418 |
| Missouri . | 112,000 | 56, 61 |
| North Carolina | 1.545 .000 | 865,653 |
| Oklahoma .i. | 2,665,000 | 1.021,250 |
| South Carolina | 2.6:5,000 | 1,182.128 |
| Tennessee | 783.000 | 276.544 |
| Texas | 11,338.000 | 4,880,210 |
| All others | 2,00 | 11,402 |




| Texas | Acreage- |  |
| :---: | :---: | :---: |
| Year |  | 500-Pound |
| 1913 | 11,732.000 |  |
| 1912 |  |  |
| 1911 | 10.043, |  |
|  | 9.700.000 |  |
| 1908 | 9,310. | 3,814.4855 |
| 1900 | 8.834,000 |  |
| 1005 | ${ }_{8}^{6.945,501}$ | , |
|  | 7,801. 7 \% | 2,609,535 |
|  | 7.640 .381 | 2.461.374 |
| 1901 | 7,178,915 |  |
| 1879 | 2,178,435 | 805.284 |


| zas | Cotton Crop | Values. |
| :---: | :---: | :---: |
| 11912 Year-.... | Sotton. ${ }_{\text {Cosi }}$ | cotton Seed. |
| 1911 | 197.000.000 | 33.410.000 |
| 1910 | 217.590,000 | 29,350,000 |
| 1808 | 16¢ 1660000 | 23,650,000 |
| 1007 | 129.310,000 | 17.770 .000 23.230 .000 |
| 1 | 133,330,000 | 15,540,000 |
| 1904 | $130.470,000$ 144110,000 | 21,690,000 |

## Ginmeries in Texas.

In 1912 there were $4.607 \mathrm{gin}-$ neries in Texas, of which number 4,300 were active and 307 inactive.

Cotton Seed Mills.
There are 220 active cotton seed mills in Texas, which crushed 1,570,966 tons of seed in 1912, which year is the latest for which official statistics are available.

TEXAS COTPTON PRODUCTION.
(500-Pound Bales.)



## TEXAS GRAIN CROPS, <br> ACREAGE AND VALURES

Texas is rapidly increasing fts acreage and yield of grains. Diversification methods have become firmly established. The increase in live stock farming where the finished product is made ready for the market has brought about a larger acreage of feedstuffs, including grains used for stock purposes. A large area of the State yet in its virgin condition is adapted to the growing of cereals, forage grains, etc., and as the soil resources are developed Texas will advance in rank in the graingrowing division of the agriculture industry.

## TEXAS WHEAT.

The Texas wheat crop for several years has varied from 11,000 ,000 to $15,000,000$ bushels and the acreage from 450,000 to 735,000 . The average yield for 1912 was fifteen bushels; for the United States 15.9. In 1913 the yield was approximately $13,000,000$ bushels. The yield averaged approximately eighteen bushels per acre.
The area adapted to the growing of wheat is many times larger than the area sowed. It is variously estimated from $7,000,000$ to $12,000,000$ acres. Wheat is now grown in the Panhandle and Plains country, North Texas, in the Red River and adjoining counties and in small acreage in many other sections of the State.

## LARGE ACREAGE OF CORN,

The last official report credits Texas with 7,300,000 acres of corn, yielding an average of twenty-one bushels per acre, or a total of $153,300,000$ bushels. Texas has been considered only an average corn State, but improved methods in cultivation is sending it higher in the scale each year. Fifty-one bushels per acre was the average of over 4,000 farmers working with the Industrial Congress. Boys in the corn clubs made a higher average, the prize winner making a record of 122 bushels.

With the exception of the higher altitudes and region of light rainfall in West and Central West Texas, corn is a staple field crop. It is adapted to several times the area now given over to its production. If the occasion required, Texas could grow 50,000,000 acres of corn and have left a large area for other crops.

## KAFFIR CORN AND MAIZE

It is unfortunate that neither the State nor the United States Government furnishes a statistical record of acreage and yield of Kaffir corn and milo maize in Texas. The latest data available is found in the United States cen-
sus, taken in 1909 and published in 1910 and 1911. At that time Texas was credited with an acreage of 573.384 and a production of 5,800 ,44 bushels. The acreage and production since the date of census has increased fully 50 per cent. It is conservative to estimate the acreage at 900,000 and the averase annual yield at approximately 13,600,000 bushels.

Kaffir corn and milo maize is the leading forage crop of Central West Texas, West Texas, the Plains and the Panhandle. In food value it ranks almost equal to corn, being superior in some respects. In yield it exceeds corn, producing in dry weather and living under adverse conditions. When cut at the right time it has proven to be excellent for silos. In fact, it is already one of the great staples of Texas and in the near future will undoubtedly exceed all field crops in value except cotton.

## OATS FLOURISH IN TEXAS.

The oat crop of Texas grows larger each succeeding year. It has been demonstrated that oats are adapted to all sections and that the yield per acre averages with the yield in other States. The acreage in 1912 was 865,000 , more than 100,000 greater than any previous year. The yield was $31,140.000$ bushels, an average of thirty-six bushels per acre. In many sections the acre yjeld varied from fifty to eighty bushels. The total value of the 1912 crop was $\$ 18390,000$ to the farmers. Dec. 1 prices.

Texas produces an excellent ouality of oats, shipping thousands of bushels North for seed. It is hecomins a pooular winter crop in Central. Central West and Northwest Texss.

## BARLEY, RYE AND FLAX.

Barley, rye and flax are grown in small acreage in North Texas, the Plains and the Panhandle. These grains do well, the vield as a rule being excellent. Thus far farmers have not become accustomed to them, but those who have tried have been successful and a fair percentage of increase in acreage can be noted each year.

## LARGE RTCE ACREAGE.

Texas is outranked by Louisiana only in the acreage and production of rice. This industry is comparatively new, having become prominent less than a decade ago. In 1912 the area planted to rice was 265,600 acres and the production 9.429 .000 bushels. an average of 35.5 bushels per acre. The total value of the year's production was $\$ 8.863 .000$. The estimated acreage for 1913 Whs 304.486.

The rice area of Texas is in the coast country, east of Victoria County. If conditions justified the acreage could be more than doubled.

## OTHER GRAINS AND SEEDS.

Texas also produces large quantities of Egyptian wheat, alfalfa seed, millet seed and other grass seeds. The range of variety of grains and seeds is large, seed production showing large gains in all sections.

## ACREAGE AND YIELD

TEXAS CROPS, 1913
Official statistics of acreage, yield and value of Texas grain, forage and other crops for 1913 will not be published by the Government earlier than June, 1914. Following, however, are statistics from reliable sources which will be found approximately correct:

Production,
Acres.


## LATEST OFRICIAL

CROP REPORT, 1812
Following are the official figures on acreage, yield and farm values of Texas grain crops for a pericd of four years, commencing with 1909. The values are based on price to producers on Dec. 1 of each year:

Wheat.

| Year- |  | Acres. | Total Yield. | Yield Acre. |
| :---: | :---: | :---: | :---: | :---: |
| 1913 |  | 725.000 | 13.050.000 | *18.0 |
| 1012 |  | 735,000 | 11.025,000 | 15.0 |
| $1!11$ |  | 700,000 | 6.580.000 | 9.4 |
| 1910 |  | 700,000 | 10.500.000 | 15.0 |
| 1900 |  | 326.000 | 2.561,000 | 9. |
| (United States, 1912) |  |  |  |  |
|  |  | , \$14,000 | 730,263.000 | 15.9 |

- Estimated.

| Year-- | Farm Value, Texas. | Farm Value, United States. |
| :---: | :---: | :---: |
| 1912 | \$10.253.000 | \$555,280.000 |
| 1911 | 1.585000 | 043.063 .000 |
| 1910 | 10.2:0.000 | 561,051.000 |
| 190 | 3.02\%.000 | 873,643.00 |



| Year- | Farm Value. Texas. | Farm Value, United States. |
| :---: | :---: | :---: |
| 1812 | 388,112,000 | \$1,520,464.000 |
| 1911 |  | 1.565,258.000 |
| 1910 | 88,250,000 | 1,384,817,000 |
| 1509 | 57,379,000 | 1,477,223,000 |





## Kaffir Corn and Maine.

## Acres. <br> Bushels. <br> 600,000 <br> 13,500,000 <br> IMPORTANT SPECLAL <br> CROPS OF TEXAS

Diversification is becoming the rule with Texas producers. Besides the general field crops previously mentioned, with which comparison can be made with other States, Texas produces a large number of special crops. Conditions of climate and soil are peculiarly adapted to specializing and large areas are devoted to crops not generally listed as staple.

## TEXAS SUGAR PRODUCTION.

Texas contains approximately 600,000 acres adapted to sugar cano production, or nearly two times the area devoted to that crop in the United States. Conditions have not warranted a rapid development of the industry.

About 350,000 acres are devoted to sugar cane for sugar-making purposes in the United States. Three hundred thousand of this is in Louisiana. The census of 1910 showed 34,350 acres in sugar cane in Texas. The acreage has been greatly decreased owing to local economic ennditions.

## Lewer filo Grande Valley.

Several hundred thousand acres In the irrigated section of the lower Rio Grande Valley are adapted to sugar plantations. It has been demonstrated that this section exceeds Louisiana in acre tonnage, in vitality of the stubble and in percentage of sugar. It is grown without fertilizing, but must be irrigated.

Compared with Louisiana: Rio Grande Valley, tons per acre 35 to 40, crops from same stubble four to six; Louisiana, tons per acre 20, crops from same stubble two.

## Coant Country Sugar.

A large area has been devoted to sugar in Fort Bend, Colorado, Matagorda, Wharton and Brazoria Counties. The acreage in these counties has been greatly reduced since prison labor was withdrawn. The area adapted to sugar growing is sufficient to supply Texas, and, including the Rio Grande Valley, to supply the needs of Texas, Oklahoma, New Mexico, Arizona and Kansas.

## Mills and Refinery.

The only sugar refinery in Texas is located at Sugarland, near Richmond, in Fort Bend County. This refinery draws its raw product from the mills in the near-by territory and imports from Cuba. It has a capacity of 500 barrels per day.
In the four counties previously named there are six sugar mills producing the raw product. while three mills are operated in the Rio Grande.

## Texas Sugar Production.

According to Government statistics, Texas has never produced more than 15,000 long tons of sugar in any one year. In 1912 early frosts caught the crop, reducing the production materially. The production of sugar for a series of years follows:

Long Tons.

| 1904-05 | 15,000 |
| :---: | :---: |
| 1905-06 | 12,000 |
| 1906-07 | 13,000 |
| 1907-08 | 12,000 |
| 1908-09 | 15,000 |
| 1909-10 | 10,000 |
| 1910-11 | 1,000 |
| 1911-12 | 7,000 |

## Sugar Beety in Texas.

A large area of the Panhandle and Plains of Texas is adapted to the growth of sugar beets. Tests have demonstrated that the percentage of sugar is large, exceeding in quality and amount the sugar in beets grown in other States where the industry prospers. Thus far, however, sugar beets have been grown for stock purposes only.

Cane for 8yrup.
Approximately 75,000 acres in Texas are annually devoted to the growth of sugar cane, ribbon cane and sorghum for syrup-making purposes. The amount of syrup manufactured amounts to $2,500,000$ gallons annually, worth to the producer $\$ 1,250,000$. The coast country and East Texas are particularly well adapted to this crop.

## HAY AND FORAGE CROPG.

It has been stated by officials of the Texas Haymakers' Association that the Texas hay and forage crop is worth $\$ 180,000,000$ annually. Statistics, however, are conflned to the product commercially, or to such acreage as is cultivated or harvested and placed on the market.

The 1912 year book gives Texas an acreage of 387,000 in hay, producing 1.40 tons per acre, the total value to the producer being $\$ 3$,559.000 . The United States census credits Texas with 1,311,967 acres of hay, grasses and coarse forage and a production of $1,257,845$ tons, valued at $\$ 10,062,760$. The acreage has been largely increased since the census, which was taken in 1909, and it is conservative to place 1913 figures at $1,500,000$ acres, a production of $1,650,000$ tons, valued at approximately $\$ 16,-$ 000,000 .

## AIfalfa an Important Crop.

Alfalfa is becoming one of the important hay crops in Texas. In all irrigated sections it is the chier crop, producing from five to six tons per acre each season. The market price varies, but growers seldom receive less than $\$ 15$ per ton baled. Many make one crop of seed which gives a net profit on the investment without even considering the value of the hay. The alfalfa crop is prominent in the Pecos Valley, the Plains and Panhandle, the Rio Grande Valley and many sections in North Texas.

## Other Forage Crops.

Approximately 100,000 acres of peanuts are grown in Texas. Many pull the vine and bale it for hay with peanuts on the roots. This makes a valuable hay, an almost balanced ration. Hogs are then turned into the field and fatten on the nuts left in the ground. Others plow the crop, sending the nuts to factories, where they are graded, shelled and prepared for confections or else made into peanut butter and oil. The peanut is growing rapidly in favor in all sections. The net returns per acre exceeds cotton.

A large acreage of millet. Hungarian grasses, sorghum and green grains is grown annually. Cow peas are also grown for the seed and for hay. Bermuda grass is
proving very profitable in East Texas. Johnson grass, while considered a pest by some, is rated as a splendid hay. A large acreage of prairie hay is harvested in East, North and South Texas.

A GROWING TRUCK INDUSTRE.
Truck growing and shipping is an important industry in Texas. It is prominent in nearly all sections of the State, but finds its greatest development in the coast country, South Central and East Texas. In some areas in West Texas a large acreage of melons and fruits are cultivated and in the vicinity of the cities in North and Central Texas there are many gardens and truck farms. There are approximately 225,000 acres in Texas devoted to the growing of vegetables.

Coast Country Truck Farmas.
The coast country truck farms produce large quantities of cabbage, celery, onions, tomatoes, cucumbers, melons, cantaloupes, potatoes, beans, peas, spinach, mustard, radishes, egg plants, peppers, corn, beets, okra and other kinds of garden truck. Cabbage is shipped in car and train load lots. Onion growing is an industry in itself and from 2,500 to 3,000 car loads are shipped annually. Many hundreds of cars of melons and mixed vegetables are shipped in season, while express shipments continue nearly twelve months in the year.

The Onion Induntry.
The onion industry is most pronounced along the Rio Grande in the vicinity of Laredo and in the Brownsville country. Various other sections in Southwest Texas devote a large acreage to Bermudas. The Texas Bermuda reaches the market several weeks earlier than the Bermuda Island crop and is a superior product. In average years It is a very profitable crop.

Growers of Fancy Tomatoes.
Early and fancy tomatoes bring large returns to Texas. growers. The growers in the Rio Grande Valley and other South and Southwest Texas points reach the market first, but East Texas, particularly the Jacksonville and Tyler districts, also Palestine, Milano and other East Texas and Central Texas points, have made a greater reputation for this product because of a larger acreage. Texas tomato shipments average 2.500 cars per annum. They are graded and well packed, selling in 1913 at an average of 75 e per crate of four baskets, f. o. b. shipping station.

## Melons and Cantaloupes.

Many thousands of acres in Texas are devoted to melons and cantaloupes. Both are shipped in car load lota and sometimes by the
train load. Both are grown in every section of the State, each section claiming a superior product. Notwithstanding these various claims, the Rio Grande country must be credited with the earliest shipments and Brenham, Washington County, with the largest total shipments. Brenham frequently loads out more than 1,000 cars per season.

Fruite and Nnta.
The small-iruit crop is important in all sections of the State, but of greater commercial prominence in East Texas and the coast country. Orchard fruit is shipped in train loads from Bast, North and Northwest Texas. (For fruit statistics, see section on horticulture.)

IRISH AND SWEET POTATORS.
Potatoes, frequently classed as truck, are produced in larger quantities in Texas each year. The figures of the Agriculture Department for 1912 credit Texas with 52,000 acres of Irish potatoes, Which produced $3,276,000$ bushels, valued at $\$ 3,440,000$. The average yield per acre was sixty-three bushels.

Texas Irish potatoes grown for the market are harvested early and sold as new potatoes. This reduces.the yield per acre, but gives the producer higher prices. Most of the crop is shipped to Northern cities early in the spring.

The Texas sweet potato crop is greater in acreage and production than the Irish. The only statistics available are found in the census report for 1910, which report shows about 20 per cent greater acreage for sweets and yams than for Irish. The total value of both crops will approximate $\$ 7,500,000$ per annum.

## TEXAS TOBACCO.

Although it has been demonstrated that a large area in East Texas in the vicinity of Nacogdoches, Palestine and San Augustine, also near Willis, will produce a cigar leaf tobacco of superior quality, practically duplicating the Havana leaf, the growth of the industry has been exceedingly slow. The acreage last reported was 200, the production 140,000 pounds, valued at $\$ 24,000$.

FERTILIZERS SOLD IN TEXAS.
Tons.
1810 . . . . . . . . . . . . . . . . . . . . . . 34,000
1911 ................................ . . 53,000
1912 ............................... 44 ,766
1913 ....................................... 64,000
Twenty per cent of the total number of boys enrolled in the boys' corn clubs in the south reside in Texas.

## FARMS AND FARM PROPERTY, CENSUS OF 1900 AND

As an index to a decade of development of Texas, attention is directed to the comparisons given in the statistical data in this section. Note should be taken of the Census Bureau's method of classifying farm lands and the distinction made between tillable lands, lands which may be tillable and farm lands. The statistics which follow show a ten years progress which compares favorably with the progress made during the same period in any other State in the Union.

## TEXAS FARMS AND <br> FARM STATISTICS

The approximate land area of Texas is $167,834,720$ acres, of which amount $112,435,067$ acres is classifled by the Census Bureau as farm land. By farm land the Census Bureau means all lands improved or unimproved, wood lands or otherwise-everything under fence or annually used either for cropping or for pasture.

Under this method of classification some of the most sparsely settled counties of the State are credited with having a greater per cent in farm lands than counties with a large population. To illustrate: Lamb County is credited with having 95 to 100 per cent of its area in farms. Lamb County has a population of 540, or 1.9 persons to every square mile. Ellis County has a population of 53,629 . It has about the same area as Lamb County, but credited with 80 to 90 per cent of its area in farms. The difference is that Lamb County is occupied by large ranches with a minmum of land in cultivation, while in Ellis County 80 to 90 per cent of the area is in actual farms.

## Improved Farm Lands.

Of the $112,435,067$ acres of farm lands in Texas, $27,360,666$ acres were improved in 1910, meaning in cultivation, or lands used as integral parts of farms. While it is not officially stated, there are approximately $115,000,000$ to $120,-$ 000,000 acres of land in Texas which may be classed as tillable.

According to the census, there were 417,770 farms in the State in 1910, an increase of 65,780 , or 18.6 per cent, in ten years. This classification includes ranches, which are used mainly for grazing purposes.

The total value of farm property in the State is $\$ 2,218.645,164$, an increase of $\$ 1,256,168,891$, or 130.5 per cent, in a decade. This value includes lands, buildings, implements, machinery, domestic animals, poultry and bees.

During the three years which have elapsed since the census farm values have increased many millions of dollars and now approximate two and three-quarter billions.

TEXAS FARM CENSUS, 1910.
The statistics which follow cover in detail all information relative to Texas farms, number, acreage, values, tenure, operators, etc., with comparisons:


Minus sign ( - ) denotes decrease.
Note.-Ranges or ranches using the public domain for grazing purposes, but not owning or leasing land, were coanted as farms in 1910 and 1000 . They were included as owned or managed, free from mortg?ge, and under three acres in size. The counting of these ranges as farms alfucts all totals, averages and per cents in which the number of farms is a factor. In 1910 there were 87 such ranges included as farms.

Farms and Farm Aereage.
The following table presents for the State as a whole for each census from 1850 to 1910, inclusive, the number of farms, acres in farms, acres in farm lands, improved acres in farms and per cent of farm land improved:

|  |  | Land in Farms. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 1910. | 417,770 | 112,435.067 | 27,360,666 | 24. |
| 1900 1890 |  | $125.807,017$ $51,406,987$ | 19,570.076 | 15. |
| 1890 | 174.184 | 36,292,219 |  |  |
| 1870 | 61,125 | 18.396,523 | 2, 064.836 | 16. |
| 1860. | 42.801 | 25,344.028 | 2,650,781 | 10. |
| 1850.. | 12,198 | 11,406.339 | 649.976 | 5. |

ing table of acreage values of sixteen Southern States, included in the territory of the Southern Commercial Congress, shows that Texas acreage values have increased more rapidly than all other States in the list except one. Oklas homa leads the list:


## Value of Farm Property.

Acre Value, Sonthern Stater.
In 1900 the average value of Texas farm lands was \$4.70. In 1910 the average acreage value advanced to \$14.77, an increase of $\$ 10.07$, or 214 per cent. The follow-




(a) Computed gold values, being 80 per cent of the currency values reported. *Includes estamated value of range animals. - Decrease.

## Acreage and Value Per Farm.

The changes which have taken place during the last sixty years in the average acreage of Texas farms and in the average values of the various classes of Texas farm property, as well as in the average Value per acre of land and buildings, are shown in the following table.

In making a study of this table it must be considered that in early days the inhabited portion of the State was divided into large plantations worked by tenants. Each plantation was counted as a farm. of late years plantations have been divided into farms, and although occupied by tenants, each division is numbered as a farm.

|  |  | Average Value Per Farm (1). |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Census Year- |  |  |  |  |  |  |
| 1810 | 269.1 | \$5.811 | \$4.412 | \$136 | ${ }^{5763}$ | \$16.80 |
| 1800 | 357.2 | 2,733 | 1,964 | 85 | 088 | 8.50 |
| 1890 | 295.3 208.4 | *2,420 | 1,753 | 60 | * 6070 | $\begin{array}{r}7.78 \\ \hline\end{array}$ |
| 1870 (a) | 301.0 | 1,322 | 787 | 44 | 490 | 2.6 |
| 1860 | 590.8 | 8.198 | 2.054 | 146 | 998 | 8.4 |
| 1850 | 942.5 | 2,387 | 1,367 | 176 | 854 | 1.4 |

(1) Averages are based on "all farms'" in State.
*Includes estimated value of range animals.
(a)Computed gold values, being 80 per cent of the currency values reported.

## Farm Building Values.

Texas farm buildings were valued by the Census Bureau at $\$ 209$,200,000 , as compared with the 1900 value of $\$ 100,223,000$, an increase of $\$ 108,977,000$, or 109 per cent. In this respect Texas ties with Arkansas for seventh place among sixteen Southern States in increase of percentage, and is second to Oklahoma for actual increase in dollars and cents.

Following is a comparative statement of farm building values of sixteen Southern States:


## Farma-Sise Groupa.

The following table shows the distribution of farms by size groups:

| Size Group. | Number of Farms. |  |
| :---: | :---: | :---: |
|  | 1910. | 1900. |
| Total | 417.770 | 352.100 |
| Under 3 acr |  | 1.302 |
| 8 to 9 acres | 9,069 | 6,785 |
| 10 to 19 acres | 19.891 | 19.633 |
| 20 to 49 acres | 98.583 | 99,137 |
| 100 to 174 acres | 112.237 | 88.5 |
| 175 to 259 acres | 31.864 | 24,000 |
| 260 to 499 acres | 27.185 | 20,001 |
| 500 to 999 acres | 12,833 | 10.183 |
| 1,000 acres and | 11.123 | 11,220 |

Finm Mortgngem, 1900-10.
The following table relates to farms operated by persons owning all or part of the land and shows for 1910 (*) the number of such farms reported as free from mort. gage; ( $x$ ) the number reported as mortgaged, and (z) the number for which no mortgage reports were secured:

|  | $\begin{gathered} \text { Owned } \\ \text { Farms. } \\ 1910 . \end{gathered}$ | Farm Homes. 100. |
| :---: | :---: | :---: |
| Class- | No. IPet. ${ }^{\text {a }}$ | No. PPet.: |
| Total | $1195.8631 \ldots \ldots$. | 1171.975 ..... |
| Free from mortgage.. |  | 125.504 76.6 |
| Mortgaged | 64.0083 | 38,408 23.4 |
| Urknown .............. | 3,773 $\ldots . . . . \mid$ | 8,003\| ...... |

${ }^{-}$Includes all farms owned in whole or in part by the operator.
"Per cent of combined total of "free from mortgage" and "mortgaged."

|  | Owned F'arms or Farm Homes Mortgaged. |  |
| :---: | :---: | :---: |
|  | 1910. | 1890. |
| Number | 48.024 | 7,221 |
| Value-Land and buildings | 297, 880, 832 | \$15,598,003 |
| Anicunt of mortgage debt. | \$76,089,272 | \$6,484.633 |
| Per cent of debt to value. | 25.5 | 41.7 |
| Average ralue per farm.... | \$6.203 | \$2.139 |
| Average debt per farm..... | \$1.584 | 5998 |
| Average equity per farm... | \$4,619 | \$1,259 |

1910 includes only furms consisting wholly of owned land and reporting value of farm abit amount of debt.
1890 includes all owned farm homes, estimutes being made of value of farms and amount of debt for all defective reports.

Farm Tenure, 1890-1910.
The following" table shows the distribution of the farms of the State according to the character of tenure at each census since 1890;

*Not reported separately.
(2) Share-cash tenants were doubtless largely included with share tenants in 1800, 1890 and 1880.
(3) Prior to 1910 nonspecified tenants were included with cash tenants.

Color and Nativity．
The farm operators of Texas are classed according to color and nativity in the following table：


## FARM STATISTICS

FOR TEXAS COUNTIES
In the following tables will be found detalled statistics of great interest concerning farms in the various counties of the State．At the time of taking the census the counties of Brooks，Culberson，Jim Wells，Kleberg，Jim Hogg，Real， Dunn and Willacy were a part of El Paso，Nueces，Cameron，Hidalgo． Duval，Edwards，Bandera，Kerr and Zapata Counties．（Note explana－ tion at the bottom of each table．）
The first table gives the approxi－ mate land area of each county． number of farms，number of acres improved and the average number of improved acres per farm．

The second table contains farm tenure statistics for each county： The number of farms operated by owners，the number operated by tenants and by managers and the percentage of all farms operated by tenants．
Table No． 3 gives the total farm land value in each county，the value of farm bulldings and the total value of all farm property， which includes machinery and im－ plements and domestic animals．

The last table in this section gives the average farm values of Texas counties，showing the aver－ age value of all farms and farm property in each county，average value of lands and bulldings，aver－ age value of lands per acre and the average value of lands per acre in 1900．Attention is called to the large average farm values in some counties，particularly those counties given over to large ranches．In these cases there are but few ranches and all of great size，making average values high because of size．In most of such cases the acre value is compara－ tively small．
Note－Statistics were taken from census bulletins of 1910．The fig－ ures apply to present conditions only in a comparative way to be used as a basis for present day estimates by those familiar with Digitized for FRAtherchanges made since that date．

LAND AND FARM AREA．

| County－ |  |  | 澈要品 | $\stackrel{\square}{\circ}$ |
| :---: | :---: | :---: | :---: | :---: |
| Texa | $167,944,720$ 607 |  | 866 |  |
| Audrew | 1，001，600 |  | 105 |  |
| Angelina | 601．000 | 1，569 | 8，342 |  |
| Archer | 558，030 | 792 | 80，185 |  |
| Armastrong | 577，920 |  | 116.734 |  |
| Atascosa |  | ${ }_{2}^{1.345}$ |  |  |
| Bailey ．．．．．．．．． | （65930 | 7 | 164 |  |
| Bandera（1）．．． | 629，120 | 74 |  |  |
|  |  |  |  |  |
|  |  | 1，040 |  |  |
| ell |  | 1．209 |  |  |
| zar |  | 2，943 | 185． 334 |  |
| Blanco | 480，000 | 753 |  |  |
| Borden |  |  |  |  |
| Bowie | E58， | 4．488 |  |  |
| Brazoria |  | 1，68 |  |  |
| azos |  | 2，62 |  |  |
| Briscoe |  | 190 |  | 12.2 |
| Briscoe | 577， | 30 | 92，418 |  |
| rown | 611.840 | 2.741 | 173，629 | 03 |
| arles |  |  |  |  |
| ${ }_{\text {Cald }}$ | ${ }_{327}^{623}$ | 2，929 |  |  |
| Callioun |  | ${ }^{203}$ | 15，89 |  |
| llakan |  |  |  |  |
| Camp | ， 125 |  |  |  |
| rson | 13. |  |  | 41. |
| Cass | 688， 640 | 4，46 | 185 |  |
|  | 573, |  |  |  |
| namb |  |  |  |  |
| Childares | 6 | 4，217 | 185 | 43.2 |
| Cl | 741 | 2，308 | ${ }_{233}$ | 14．3 |
|  |  | 16 |  |  |
| coke |  | 969 |  |  |
| Collin | ${ }_{56,}$ | 6，507 | ${ }_{427}$ | ， |
| ollingswo | 574 | ${ }^{806}$ |  | 130 |
|  |  | 2，28 |  |  |
| Coman |  | 4.372 |  |  |
| C | 588， |  | 80 | 93. |
| Corsell | 577 | 3，238 | 250.5 |  |
| Cottle | 647 \％ | ， 500 |  | 71 |
| Crame | 561 | 71 | 1，58 | 22.3 |
| Croe |  | 79 | 47. |  |
| Culberso |  | 2 |  | 25．4 |
| Dallam | 980，480 |  |  |  |
| Dallas | 549.760 | 5，284 | 353,3 |  |
| Darson | ${ }^{577} 9$ | ${ }^{330}$ | 42，6 | 129.2 |
| 1ta | 167．040 | 2.22 |  |  |
| ton | ${ }^{609} 9.280$ | 2 | 343 |  |
| Dewitl |  | 2.746 |  |  |
| Dimmit |  | 析 | 34，5 | ${ }^{88} 9$ |
| Donley | 579，840 | St | 82，0 | 136.5 |
| Dural（i） | 1，163，0 |  |  |  |
| Exathand | ；92，0 | 2，98 | 173. |  |
| Ectar |  | 381 |  |  |
| Ellis | 1，624，200 | 5，80 |  |  |
| El P．is | 5．971．840 | 663 |  |  |
| ${ }_{\text {F }}$ | 476 | ${ }_{4}^{4}, 6$ | 256，701 |  |
| Faunin |  | 6，43， |  |  |
| Fayette | 61 | 4.379 |  | 45.6 |
| Flosher |  |  |  | ． 4 |
| Foard | 391，680 | 78 | 73 | 102.0 |
| Fort Be | 506，880 | 2，54 | 140，7 | 5s． |

Land and Farm Area-Continued.


Land and Farm Area-Continued

Land and Farm Area-Continued.

| Cobnty- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Whecler | 572.800 | 736 | 169,254 | 230.0 |
| Whlitit | 386.560 | 1.039 | 171,656 | 168. |
| Wilbarger .. | 593,920 | 1,435 | 202,460 | 111.1 |
| Wiliacy ...... |  |  |  |  |
| Williamson | 722,560 | 4,482 | 363,266 | 81.0 |
| Witson | 520,320 | 2,150 | 139,971 | 65.7 |
| Winkler | 540,160 | 128 | 632 | 5.0 |
| Fisc ............ | 552,320 | 3.721 | 249,830 | 67.1 |
| IVo d | 420.480 | 3.600 | 145,976 | 40.5 |
| Yeakitm | 562,560 | 107 | 8,339 | 7.9 |
| Yotin't | 560,000 | 1,796 | 131.758 | 73.4 |
| Tapata(11) ...a | 824,320 | 297 | 7,346 | 84.7 |
| \%i.val!a | $862.72)$ - | 150 | 6,165 | 41.1 |

Note.-(1) Poition taken to form Real County. (2) Portion taken to form a part of Jim Hegg County. (3) Portion talien to form Willecy Connty. (4) Portion taken to form a part of Jim Hogg County and Dunn County. (5) rortion taken to form a part of Real County. (6) Portion taken to form Culbersou County. (7) Fortion taken as a part of Brooks and Willecy Counties. (8) Portion taken to form a part of Real County. (9) Portion taken to form Jim Wells and Kleberg Counties. (10) Fortion talen to form a part of Brooks County. (11) Portion taken to form a part of Brooks County.
The connties of Brooks. Culberson, Jim Hogg. Jim Wells, Kleberg. Real. Willacy and Pat Dinn were created too late to be considered in the census report of 1910.
FARM TENURE, TEXAS COUNTIES.

| County- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| State | 195,8 | 219,575 | 2.332 | 52.6 |
| Anderson | 1,859 | 1,908 |  | 50.6 |
| Andrews |  |  |  | 5.6 |
| Angelina | 1,104 | 162 | 3 | 29.4 |
| Aransas | 60 | 17 | 2 | 23.4 |
| Archer | 443 | 339 | 10 | 42.8 |
| Armstrong | 246 | 133 | 8 | 10.5 |
| Atascosa | 712 | 630 | 13 | 48.1 |
| Austid | 1,601 | 1,300 | 5 | 44.7 |
| Bailey | 48 | 17 | 6 | 23.9 |
| Bandera (1) | 576 | 195 |  | 25.2 |
| Bastrop | 1,26\% | 1,816 | 13 | 58.7 |
| Baylor | 420 | 616 |  | 59.2 |
| Bee | 502 | 691 | 16 | 0.2 |
| Bell | 1,935 | 2.973 | 7 | 60.5 |
| Bexar | 1,605 | 1,248 | 50 | 3 |
| Borden | 149 | 72 | 7 | 4 |
| Bosque | 1,289 | 1,294 | 15 | 9 |
| Eowie | 1,902 | 2,569 | 9 | 8 |
| Brazoria | 1,023 | 631 | 31 | 37 |
| Brazos | 1,038 | 1,575 | 14 | 60.0 |
| Brewster | 176 | $10{ }^{6}$ | 8 | 2 |
| Briscoe | 196 | 197 | 4 | 3. |
| Brown | 1,570 | 1160 | 11 | 12. |
| Burleqon | 1,063 | 1,681 | 21 | 6) 8 |
| Burnet | 862 | 716 | 4 | 45. |
| Caldwell | 934 | 1,938 | \% | 69 |
| Calhoun | 187 | 104 | 2 | 35.5 |
| Callahan | 1,032 | 798 | 7 | 13. |
| Cameron(3) | 366 | 322 | 21 | 45.4 |
| Camp | 770 | 753 | 2 | 48, |
| Carson | 2483 | 2,043 | 2 | 48 |
| Castro | 2,2031 | 2, ${ }_{9}$ | 10 | ${ }_{8}$ |

Farm Tenure, by Counties-Cont.


Harm Teuure, by Countiem-Cont.
Counts-

Kunt
Hutch
Irion

## Jack ...

Jasper
Jeff Davis
Jefferson
Jim Hogg
Jina We!l
Jones
Karnes
Kaufma
Kendall
Kent
Kerr (8)
King
Kinney
Knoz
Lamar
Lampasas
Lavaca
Lee
Liberty
Limestone
Live Oak
Llano
Lubbock
Lynn
Madison
Martin
Mason ....
Maverick
McCalloch
McLennan
McMullen
Medina
Midiand
Milam
Mitcheli
Montague
Montgomery
Moore
Motley Nacogdoches
Navarro
Nolan
Nueces (9)
oldham
Orange
Panola
Parmer
Pecos
Potter
Presidio
Rains
Randall
Real
Red River
Reeves
Rofugo …

Farm Tenure, by Counties-Cont.

| County- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Rob | 55 | 28 | 10 | . |
| Robertson | 1,281 | 3,000 | 22 | 68.7 |
| Rockwall | 317 | 602 | 3 | 55.3 |
| Runnels | 1,122 | 1,397 | 7 | 55.3 |
| Rusk | 2,539 | 2,351 |  | 18.0 |
| Sabine | 640 | 402 | 5 | 38.4 |
| San Augustin | 751 | 892 |  | 54, |
| Ban Jacinto | 791 | 687 |  | 46.4 |
| Gan Patricio | 210 | 252 | 8 | 53. |
| San Saba | 845 | 681 | 4. | 44.5 |
| Scurry ... | 705 | 709 | 10 | 9.8 |
| Shackelford | 332 | 248 |  | 42 |
| Shelby | 2,137 | 1,361. | 5. | 38.9 |
| Sherman | 103 | 56 | 6 | 33.9 |
| Smith | 2,708 | 3.196 | 20 | 54.0 |
| Somervel | 341 | 322 |  | 48.5 |
| 8tarr (10) | 651 | 261 |  | 28.4 |
| Stephens | 864 | 506. | 5 | 36.8 |
| Sterling | 128 | 7 |  | 5.9 |
| Sutton | 4113 | 418 | 6 | 50. |
| Swisher | 320 | 184 | 6 | 36.1 |
| Tarrant | 1,765 | 1.784 | 33 | 49.8 |
| Taylor | 1,039 | 1,351 | 14. | 56.2 |
| Terrell | $4{ }^{4}$ | 14 | 2 | 23.3 |
| Terry | 181 | 53 |  | 22.6 |
| Throckmorton | 396 | 293 |  | 42.2 |
| Titus | 1,166 | 1,559 | 2 | 57.1 |
| Tom Green | 478 | 497 | 231 | 49.8 |
| Travis | 1,381 | 2,156 | 31 | 60.1 |
| Trinity | 835 | 2 |  | 41.5 |
| Tyler . | 822 | 2981 | 31 | 20.5 |
| Upshur | 1,694 | 1,617 | 21 | 18.8 |
| Upton | 97 |  | 1 | 22.2 |
| Uvalde | 474 | 223 | 9 | 31.6 |
| Val Verde | 150 | 39 | 2 | 20.4 |
| Van Zandt | 2,429 | 2,075 | ${ }^{6}$ | 46.0 |
| Victoria | 806 | 690 | 23 | 45.4 |
| Walker | 926 | 1,232 | 3 | 57. |
| Waller | 892 | 1,158 | 11 | 56.2 |
| Wardington | 118 | 109 | 4 | 47.2 |
| Washington | 1,550 | 2,069 | 12 | 57.2 |
| Wharton | 277 |  | ${ }_{2}^{28}$ | 9.5 |
| Wharton | 1,050 | 1,581 | 23 | 59.6 |
| Wheeler Wichita | 494 | 236 | 6 | 32.1 |
| Wichita Wilbarger | 457 | 574 | 8 | 55.2 |
| Wilbarger Willacy . | 555 | 878 | 2 |  |
| Williamson | 1,832 | 2,697 | 7 | ¢9.i |
| Wilson | 1,074 | 1,043 | 13 | 49.0 |
| Winkler | 123 |  | 1 | 0.8 |
| Wise | 1.937 | 1,771 | 13 | 47.6 |
| Wood | 1,893 | 1,702 | 5 | 47.3 |
| Yoakum | 89 | 15 | 3 | 14.0 |
| Young | 993 | 802 | 1 | 4.7 |
| Zapata(11) | 266 | 30 | 1 | 10.1 |
| Zavalla .. | 109 | 38 | 5 | 24.0 |

Note.-(1) Portion of territory taken to form a part of Beal County. (2) Portion tazen to form a part of Jim Hogs County. (3) Portion taken to form a part of Willacy County. (4) Portion taken to form a part of Jim Hogg County and Dunn County. (5) Portion taken to form a part of Real County. (6) Portion taken to form Culberson Counts. (7) Portion taken to form parts of Brooks and Willacy Counties, (8) Portion taken to form a part of Real County. (9) Portion taken to form Jim Wells and Kleberg Counties. (10) Portion taken to form a part of Brooks County. (11) Portion taken to form a part of Brooks County.
The counties of Brooks, Culberson, Jim Hogg, Jim Wells, Kleberg, Real, Willacy and Dunn were created too late to be considered in the census report of 1910.

FARM VALURS, TEXAS COUNTIES.

|  |  |  | All |
| :---: | :---: | :---: | :---: |
| Countro | Land | Building | property |

Farm Values, by Conntiem-Cont.

| County- | Land <br> valne. | Building <br> value. | All <br> froperty <br> value. |
| :---: | :---: | :---: | :---: |


|  | 111 | \$ 527.019 | \$16,456,716 |
| :---: | :---: | :---: | :---: |
| Gaines | 3.859,366 | 155,930 | 5,006,907 |
| Galveston | 4,096,164 | 717,020 | 5.458,038 |
| Garza | 2,102,701 | 80,895 | 2,776,437 |
| Gillespie | 7.161,590 | 1,264,650 | 10,170.742 |
| Glasscock | 3.716,003 | 151,800 | 4,590,594 |
| Goliad | 6,276,733 | 577,413 | 8,322,227 |
| Gonzales | 13,148,369 | 1,848,563 | 17.904,423 |
| Gray | 4,784,155 | 343,790 | 6.428.587 |
| Grayson | 20,007,413 | 3,939,483 | 27,941,505 |
| Gregm | 1.273,350 | 549,597 | 2,355,266 |
| Grimes | 3,261,002 | 786,092 | 5,581,626 |
| Quadalupe | 15,134,872 | 2,437,432 | 19,706,393 |
| Hale | 8,959,590 | 746,495 | 11,092,981 |
| Hall | 6,178,141 | 588,406 | 8,306,971 |
| Hamilt | 7,999.716 | 1,249,3:3 | 11,068,219 |
| Hansford | 2,542,797 | 161.431 | 3,244,912 |
| Hardeman | 6,349,131 | 758,428 | 8,386,814 |
| Hardin | 575,366 | 128,855 | 975,464 |
| Harris | 13,208,809 | 2,010.535 | 18,130,815 |
| Harrison | 3,917,736 | 1,259,428 | 6.683,451 |
| Hartley | 3,987,493 | 176,520 | 5,325,043 |
| Haskell | 11,552,466 | 1,255,712 | 14,742,133 |
| Hass | 8,098,613 | 990,5 | 10,447,246 |
| Hemphill | 3,727,984 | 186,240 | 4,798,699 |
| Henderson | 3,427, 130 | 1,121.903 | 6,170,177 |
| Hidalgo(7) | 9,551,230 | 574,891 | 10,992.746 |
|  | 26,464,223 | 3,743,101 | 34,511,675 |
| Hockley | 1,900,268 | 43,950 | 2,214,729 |
| Hood | 4,535,406 | 903,980 | 6,611,645 |
| Hopkins | 6,833,495 | 2,070,446 | 11,441,295 |
| Houston | 3,321,735 | 1,141,426 | 5,943,309 |
| Howard | 9,610,285 | 552,605 | 11,577,314 |
| Hunt | 15,656,387 | 3,239,230 | 22,661,678 |
| Hutchins | 2,426,767 | 77,040 | 3,337,979 |
| Irion | 934,115 | 81,075 | 1,306,055 |
| Jack | 6,158,929 | 720,938 | 8,777,093 |
| Jackson | 12,995,540 | 720,938 | 16,313,721 |
| Jasper | 786,755 | 479.748 | 1,737,712 |
| Jeff Davi | 2,289,603 | 138,200 | 3,731,010 |
| Jeffersou | 4,617,034 | 735,570 | 6,554,996 |
| Jim Hogy |  |  |  |
| Jim Weils |  |  |  |
| Johnson | 15,761,959 | 2,600,896 | 21,198,605 |
| Jones | 13.207,165 | 1,497,663 | 16973,682 |
| Karnes | 9,729,329 | 853,757 | 12,257,338 |
| Kaufman | 13,013.277 | 2,139,746 | 18,047,998 |
| Kendall | 3,088,575 | 568,272 | 4,448,256 |
| Kent | 5.609,572 | 176.145 | 6,575,326 |
| Kerr (8) | 4.078,420 | 428,820 | 5,670,713 |
| Kimble | 3,936, 154 | 305,355 | 5,531.419 |
| King | 1,838,830] | 73,915 | 2,774,854 |
| Kinney | 2,621,652 | 85,121 | 3,343.474 |
| Klebery |  |  |  |
| Knox . | 7,956,915 | 666,028 | 10,191,039 |
| Lamar | 12,313,726 | 2,819,699 | 18.473,846 |
| Lamb | 6,764,634 | 72,340 | 7,782,514 |
| Lampasas | 4,855,205 | 750,843 | 7,042,888 |
| La Salle | 8,456,811 | 260,770 | 10,122,361 |
| Lavaca | 11,891.000 | 1,971.127 | 16.395,611 |
| Lee | 2,6¢3,827 | 719,129 | 4,490,935 |
| Leon | 2,793,973 | 729,079 | 4,812,505 |
| Liberty | 1,338,672 | 294,940 | 2,533,831 |
| Limestone | 15,057,288 | 2,433,775 | 21,063,892 |
| Lipscomb | 5,300,084 | 290,103 | 6,709,346 |
| Live Oak | 3,870,911 | 259,730 | \$.953,769 |
| Llano | 3,737,590 | 428,715 | 5,560,091 |
| Loving | 1,107,832 | 18,344 | 1,280,100 |
| Lubbock | 4,654.045 | 299,340 | 5.617,779 |
| Lynn | 3,014,650 | 161,040 | 3,695. 383 |
| Madison | 2,074,490 | 471,524 | 3,395,245 |
| Marion | 1,177,061 | 393,724 | 2,022,899 |
| Martin | 2,698,799 | 150,702 | 3,370,347 |
| Mason | 5,319,423 | 605,535 | 7,473,668 |
| Matagorda | 7,441,866 | 774,130 | 9,755,497 |
| Marerick | 799,414 | 51,201 | 1,155,178 |
| McCulloch | 12,612,842 | 669,873 | 15,174,082 |
| McLentar | 28,366,774 | 3,984,364 | 36,994,707 |
| McMullen | 2,698,151 | 89, 270 | 3,163,211 |
| Medina | 7,739,156 | 856,441 | 10,163,3¢5 |
| Mena | 3,639,233 | 809.635 | 4.935,757 |
| Midland | 4,138,600 | 220,535 | 5,278,721 |

## Farm Values, by Countien-Cont.

| County- | Land value. | $\begin{array}{\|c} \text { Building } \\ \text { value. } \end{array}$ |  |
| :---: | :---: | :---: | :---: |
| M | 12,841,248 | 1,952,916 | \$17.849.279 |
| Mills | 4,837,861 | 661.503 | 6,809,329 |
| Mitche | 7,063, 2197 | 567,693 | 8,860.853 |
| Mont |  |  | 12.173,0:3 |
| Montgomery | 1,435,464 |  | 2.781,113 |
| Mooro | 1,142,885 | 90,355 | 1,563,348 |
| Morris | 1.097, 861 | 514,166 | 2,191.501 |
| Motiey | 6.965.001 | 229.822 | 8,802.232 |
| Nacogdoche | 2.829,717 | 1,236.312 | 5,456.072 |
| Navarro | 18,715,561 | 2,729.515 | 25,392.827 |
| Newton | 673,184 | 292, 630 | 1,371,265 |
| Nolan | 5.777,557 | 533,608 | 7,491,028 |
| Nueces(9) | 20,411,010 | 802.875 | 24.517,342 |
| Ochiltree | 2.930.018 | 236,655 | 3.838,345 |
| Oldham | 2.692 .624 | 97 | 3,554,720 |
| Orange | 1.005,990 | 283.040 | 1,701.420 |
| Palo Pi | 6,960,895 | 907,230 | 9,359,832 |
| Panola | 2.104,681 | 770,403 | 4,020,734 |
| Parker | 9,233.467 | 1,734,361 | 13,569,349 |
| Parme | 1.668.171 | 169.175 | 2,141.577 |
| Pecos | 4,791,089 | 32.580 | 7,273.796 |
| Polk | 1,174,483 | 476,944 | 2,418.15] |
| Potter | 3,911,430 | 212.155 | 5,202,101 |
| Presidi | 2,147,364 | 174,825 | 3,447,703 |
| Rains | 1,287.175 | 349.023 | 2.208,940 |
| Randal | 6,424,466 | 505,223 | 7,864,920 |
| Reagan | 2,444,659 | 43,800 | 2,905,730 |
| Real <br> Red |  | 17 |  |
| Reeves | 3,463,177 | 188,495 | 4.358,528 |
| Refugio | 4.405,030 | 283,992 | 5,376,864 |
| Roberts | 3.936,912 | 144,100 | 5,265.946 |
| Robertson | 5.539,139 | 1,248.490 | 8.876,169 |
| Rockwall | 4,679,810 | 700,846 | 6,088,312 |
| Runnels | 12.791.792 | 1,354.938 | 16,455,509 |
| Rusk | 3,081,925 | 1,242.079 | 6,158,707 |
| Sabine | 770.8 | 273,540 | 1.334, 101 |
| San Augu | 1,033,087 | 323, 186 | 1,897,851 |
| San Jacinto | 829,524 | 223,243 | 1,558,748 |
| San Patricio | 3,482.713 | 350,700 | 5,133.421 |
| San Sab | 7,912.959 | 794,820 | 10,882.294 |
| Sclueicher | 4,699,574 | 315,925 | 7,073.357 |
| Scurry | 8,633,213 | 818,352 | 11.013,424 |
| Shackelford | 6,576.477 | 435.949 | 8.624.093 |
| Shelby | 2.353,736 | 1,060,430 | 4,660,642 |
| Sherman | 3,056,615 | 169.710 | 3.931,877 |
| Smith | 4,928.288 | 1,755.811 | 8,761,191 |
| Somervell | 1,346,313 | 214.790 | 1.931.927 |
| Starr(10) | 3,122,601 | 145,680 | 5,468,184 |
| Step? ${ }^{\text {a }}$ ( | 4.784 .856 | 583,665 | 6.737.719 |
| Sterling | 2,573,644 | 140,412 | 3,597,896 |
| Stonewal | 4,371.640 | 364,680 | 5.820,020 |
| Sutton | 3,444.412 | 205.120 | 5,315,465 |
| 8wisher | 6,293,977 | 517,204 | 7,771,464 |
| Tarrant | 20.152,983 | 2.646, 103 | 26.045.813 |
| Taylor | 11.178 .525 | 1,229,622 | 14,560.752 |
| Terrell | 1.492,830 | 115,250 | 2,423,630 |
| Terry | 3,457.789 | 163.266 | 4,431,806 |
| Throckm | 5.523 .944 | 2588.420 | 7,139,882 |
| Titus | 2,159,120 | 785,125 | 3,993,845 |
| Tom Gree | 10,627,185 | 633,977 | 13,284,324 |
| Travis | 19,513,776 | 2,831,388 | 25,382,648 |
| Trinity | 852.881 | 393.585 | 1,900,644 |
| Tyler | 712,327 | 332,211 | 1,484.692 |
| Upshur | 1,839,289 | 811,108 | 3,812,220 |
| Upton | 3.515,947 | 111,680 | 4,483,242 |
| Uvalde | 5,617,648 | 488.962 | 7,707.036 |
| Val Verde | 3,579,837 | 167.640 | 5,332,392 |
| VanZandt | 5,149.1801 | 1.520.829 | 8,980.451 |
| Victoria | 11,953,011 | 817.279 | 14.798.918 |
| Walker | 1.455.174 | 485.114 | 2.674.378 |
| Waller | 3.073,250 | 711.97 | 4.988,048 |
| Ward | 2,779,283 | 125.315 | 3,331.197 |
| Washington | 7,024.557 | 1,939.224 | 11,120.561 |
| Webb | 5.23.442 | 229,815 | $6.646,335$ |
| Wharton | 12.713,694 | 1,493,828 | 17,25.134 |
| Wheeler | 5,632.606 | 506,840 | 7.699,093 |
| Wichita | 9,393,45 | 775,642 | 11.715.573 |
| Wilbarger | 9, 335,666 | 979,42 | 12,670,989 |
| Williacy | 33,977,692 | 3,606,408 | 41.814.047 |
| Wilson | 7,022,650 | 1,024,024 | 9,446.911 |
| Winkler | 1,897,196 | \%,413 | 2,300,318 |

Farm Values, by Counties-Cont.

| County- | Land value. | Building value. |  |
| :---: | :---: | :---: | :---: |
| Wise | 8.690 .225 | \$ 1.931 .619 | \$13.281.23 |
| Wood ${ }^{\text {a }}$ | 2,se | 1,070,956 | 4,850.838 |
| Yoakum | 2, $2: 98$ | 101. 105 | 3,698,675 |
| Yourg | 8.56, 81 | 920.116 | 11,296,979 |
| Zapata(11) | U8, $0 \times 8$ | 5n, 339 | 950,800 |
| Zavalla... | 2.833,22' | 110,020 | 3.coj, 51 |

*All farm property includes lands, bitildings, farm machinery and implements and domestic animals.
(Note.-Farm lands in Texas were given a total value of $\$ 1,633,207,135$ by he census of 1910 . farm buildings $\$ 210,001,200$; farm machinery and impiements $\$ 56,790,250$; domestic animals $\$ 318$, 616.509; total value of all farm property $\$ 2,218$, 645.164.)

Note,-(1) Portion of territory taken to form a part of Real County. (2) Portion taken to form a part of Jim Hogg Connty. (3) Portion taken to form a part of Willacy County. (4) Portion taken to form a part of Jim Hoge County and Dunn County, (5) Portion taken to form a part of Real County. (6) Portion taken to form Culberson County. (7) Portion taken to form parts of Brooks and Willacy Counties, (8) Portion taken to form a part of Real County. (9) Portion taken to form Jim Wells and Kleberg Counties. (10) Portion taken to form a part of Brooks County. (11) Portion taken to form a part of Brooka Portion taken to form a part of Brooks County.
The counties of B onks, Culbirson. Jim Hogg, Jim Wrlls Klebert. Real, Willacy and Dimn were created too late to be considered in the census report of 1910.
AVERAGE FARM VALUES IN TEXAS.

| County- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Anderson | \$ 1,425 | \$ 1 1,067 | 8.02 | 4.13 |
| Andrews | 194,860 | 111,428 | 5.77 | 65 |
| Angelina | 1,349 | 910 | 6.40 | 3.90 |
| Aransas | 9,461 | 7.359 | 8.97 | 3.68 |
| Archer ... | 11,863 | 9,437 | 15.f5 | 3.67 |
| Armstrong | 17,639 | 14,028 | 5.95 | 1.85 |
| Atascoga | 5,83 3,240 | 4,938 2,604 | 12.87 17.08 | 2.56 |
| Bailey | 59.059 | 53,152 | 10.16 | 14.82 |
| Bandera(l) | 5,091 | 3,856 | 5.52 | 2.60 |
| Bastrop . | 2,925 | 2,370 | 15.74 | 9.69 |
| Baylor | 7,291 | 6,127 | 11.88 | 2.64 |
| Bee | 8,176 | 6,876 | 17.69 | 4.13 |
| Bexar | 7,311 | 6.483 | 50.02 | 17.18 |
| Bexar | 9,581 | 8,598 | 29.71 | 10.41 |
| Blanco | 5,565 | 4,277 | 6.08 | 3.14 |
| Borden | 12,208 | 9,825 | 7.80 | 1.29 |
| Bosque Bowie | 5.374 | 4,396 | 16.81 | 8.16 |
| Bravie | 1,5996 | 1,209 | 12.34 | 4.35 |
| Brazoria | 5,146 3,143 | 4,198 | ${ }^{24.62}$ | 8.92 |
| Brewster | 31,145 | 24,437 | 3.10 | . 83 |
| Briscoe | 19,689 | 16,063 | 9.91 | 1.06 |
| Brooks ${ }^{\text {Brawn }}$ |  |  |  |  |
| Brown ${ }_{\text {Burleson }}$ | 4,767 | 3,984 | 17.72 | 5.63 |
| Burleson | 2.745 | 2.298 | 15.88 | 9.86 |
|  | 5,460 | 4,232 | 9.79 | 6.19 |
| Caldwell | 5,259 | 4,552 | 40.87 | 14.75 |
| Calhoun | 9,608 | 8,297 | 23.49 | 4.64 |
| Cammeron (3) | 5,388 | 4,472 | 15.52 | 4.33 |
| Cameron(3) | 12,953 | 11,135 | 13.75 | 4.53 |
| Camp ... | 1,492 | 1.149 | 11.74 | 5.47 |
| Carson | 25,195 | 21.441 | 12.39 | ${ }_{3}^{1.36}$ |
| Cass | 1.283 | 9505 |  |  |
| Chastro ... | 19.834 | 17,737 | 19.08 | 1.36 |
| Chambers | 5,469 1,803 | 4.419 | $\frac{12.54}{13.09}$ | 2.16 |
| Childress | ${ }_{7,140} \mathbf{1 , 8 0 3}$ | 5,936] | 13.09 16.95 | 4.83 1.98 |

## Average Furm Valuegmecont．

$\quad$ County－

Corbrai
Co：e ．．．．
Collin
Collingsworth
Co＇orido
Comal
Comanche
Concho
Cooke
Cottle
Crane
Crorkett
Crosby
Dallam
Dall：s
Darson Smit
Deaf
Denton
Dewitt
Dickens
Donley
Dumn
Bastland
chtor ：
Ellis

## Frath <br> Fannin

Fisyette
Fisher
Foard ．．．．．．．．．．．．．．．．．．．．
Fort Bend
Freestone
Frio．
Galveston
Gillespie
Glasseocis
Goliad
Gonzales
Gray
Gregg
Grimes．
Hale
Hamiltơn
Hansford
Hardeman
Hardin
Harris
Harrison
Haskell
Hemprij1
Henderson
Eidalgo（7）
Hill
Hockle
Hopkina
Houston
Hunt
Iutchinson
Jrion
Jackson
Jacper
｜\＄ $8.3911 \$$
$325.324 ;$
G．9in） G．940！
6.695
5.1105


| .81 |  |
| :---: | :---: |
| .87 | 80 |
| 50 | 50 | 8.76

80.83
50.76 2.95
2.36 ジック
1.43
29.43
1.48 29.43
1.70 1.70
10.73
7.35 1.73
6.98
6 ©

$$
\begin{array}{r}
14.14 \\
8.87 \\
2.12 \\
1.75 \\
1.15
\end{array}
$$

$$
\begin{array}{r}
.75 \\
1.15 \\
1.88
\end{array}
$$

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Average Famn Values－Cont．


Average Farm Valuet-Cont.

| County- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| gan |  |  | 12 |  |
| Schleicher | 33,958 | 24,113 | 5.72 | 3 |
| Becursy | 7731 | 6.637 | 16.60 | 1.78 |
| Shackelford | 14,642 | 11,906 | 13.49 | 3.43 |
| Shelby | 1,330 | 1985 | 7.78 | 156 |
| Sherman | 23, 330 | 19,553 | 11.97 | 1.56 |
| Smith | 1.479 | 1,128 | 11.02 | 5.16 |
| Somervell | 2,910 | 2,351 | 14.38 | 5.54 |
| Starr (10) | 5,957 | 3.500 | ${ }^{4} .683$ | 1.37 |
| Stephens | ${ }_{26} 6,60$ | 20,104 | ${ }_{7.68}^{10.3}$ | 2.38 |
| Stonewall | 6,978 | 5,679 | 10.92 | 1.45 |
| Sutton | 40.576 | 27,859 | 4.38 | 1.21 |
| Swisher | 15.238 | 13,355 | 21.11 | 1.62 |
| Tarrant | 7.271 | 6,365 | 43.12 | 17.06 |
| Taylor | 6,057 | 5.161 | 23.81 | 4.41 |
| Terrell | 40.394 | 26.801 | 2.40 |  |
| Terry | 18,859 | 15,409 | 8.96 | 1.12 |
| Throcknorton | 10.288 | 8.332 | 11.96 | 3.33 |
| Titus | 1,465 | 1082 | 10.49 | 8.92 |
| Tom Green | 13,311 | 11,284 | 11.2 | 2.08 |
| Travis. | 7,114 | 6,250 | 38.75 | 19.20 |
| Trinity | 1,352 | 888 | 7.68 | 3.64 |
| Tyler | 1,322 | 930 | 5.69 | 1.28 |
| Upshur | 1.151 |  | 7.4 |  |
| Upton | 42,698 | 34,835 | 4.48 | 1.04 |
| Uvalde | 10,912 | 8,647 | 8.55 | 2.18 |
| Val Verde | 27,918 | 19,620 | 2. | 1.0 |
| Yan Zand | 1,992 | 1,48 | 11.92 | 7.00 |
| Victoria | 9,743 | 8,407 | 26.98 | 8.89 |
| Walker | 1,238 | 875 | 7.87 | 4.56 |
| Watler | 2,420 | 1,827 | 15.82 | 9.79 |
| Ward | 14.637 | 12,574 | 8.56 | 1.13 |
| Washington | 3,046 | 2,455 | 20.40 | 20.88 |
| Webb .. | 19,722 | 16,321 | 4.88 | 1.25 |
| Wharton | 6,502 | 5,353 | 35.81 | 10.02 |
| Wheeler | 10.419 | 8.387 | 12.34 | 1.50 |
| Wichita | 11.276 | 9.787 | 28.76 | 4.54 |
| Wilbarger | 8,380 | 7,537 | 23.8 | 4.97 |
| Willary ${ }_{\text {W }}$ (lliam | 9,329 | 8,385 | 51.35 | 18.13 |
| Wilson | 4, 235 | 3,778 | 17.50 | 5.05 |
| Winkler | 17,971 | 15,044 | 5.22 | 2.34 |
| Wise | 3,569 | 2.865 | 17.77 | 9.04 |
| Wood | 1,349 | 1.000 | 9.20 | 35 |
| Yoakum | 34,567 | 28,627 | 6.74 | 08 |
| Young | 6,290 | 5,273 | 18.64 | 3.72 |
| Zapata(11) | 34.044 | 19,422 | 4.75 6.31 | 1.73 |

Note.-(1) A portion of territory taken to form a part of Real County. (2) Portion taken to form a part of Jim Hogg County. (3) Portion taken to form a part of Willacy County. (4) A portion taken to form a part of Jim Hogg County and Dunn County. (5) Portion taken to form a part of Real County. (6) Portion taken to form Culberson County. (7) Portion taken to form parts of Brooks and Willacy Corunties. (8) Portion taken to form a part of Real County. (9) Portion taken to form Jim Wells and Kleberg Counties. (10) Portion taken to form a part of Brooks County. (11) Portion taken to form a part of Brooks County.
The counties of Brooks, Culberson. Jin Hogg. $J i m$ Wells, Kleberg Real, Willacy and Dunn were created too late to be considered in the census report of 1910.

Texas, with its almost unlimited capacity for producing feedstuffs, does not raise enough for home consumption. The Department of Commerce and Labor recently issued a statement showing that Texas snent $\$ 10,800,000$ for feedstuffs annually.

WORLD'S COTYON CONSUMPPION
Statistics of the consumption of cotton for the year ended Aug. 31, 1913, and of the stocks of cotton in spinners' hands Aug. 31, 1913, is sued by the International Federa. tion of Master Cotton Spinners and Manufacturers' Associations, show that during the year mentioned $129,895,561$ spinning spindles out of a total estimated $143.452,659$ spinning spindles in the world were in work, and that the consumption of cotton during the period was 20,277,386 running bales, of which 13,7602261 were American. The stock on hand at the close of the year was $3.540,771$ bales, of which 1,622,366 bales were American, says a consular report.

In his introduction to the report, the secretary of the federation states:
"The owners of more than 90 per cent of the total spindles in the world have made returns; it must be borne in mind, however, when drawing conclusions from the figures in these tabulations that the consumers of American and Egyptian cotton are represented by a higher percentage than 90 , as the missing 10 per cent is partly accounted for through the smaller response from India, Mexico, Brazil Turkey, etc., where indigenous cottons are almost exclusively used.
"The total number of spindles in work is, for most countries, arrived at by the addition of the comparatively few spindles which have not sent returns to those actually reported. Doubling and waste spindles do not use raw cotton and are not included in these statistics.

## COTTON DISTRIBUTION.

Few people really understand how necessary cotton is to the carrying on of the world's industries. In addition to the manufacture of cotton cloth, a few of the minor uses to which cotton was put in 1912 are as follows:

Bales.
In the manufacture of automobiles
.500,000
In railway and street cars. 200,000
The rope and twine industry $\mathbf{7 5 , 0 0 0}$
Harvesting machinery (ele-
vators, aprons, carriers)..
70,000
Cotton sacks used for grain,
flour, meal, cereals, etc... 60,000
Covering for electric wires.. 50,000
Umbrellas
40,000
Rubber belting and rubber
hose
25,000
Absorbent cotton, surgeon's
bandages, jewelers' cotton 15,000
Upholstering for all "house-
hold furniture"...........
Industries
20,000
15,000
-Industrial Texas.

## HORTICULTURE ATTRACTING ATTENTION OF THOUSANDS

The growth of horticulture in Texas is one of the features in its progress to the top of the column in the list of States in the total value of soll products. Compared with other States noted for the production of fruits and nuts, it has been but a few years since Texas assumed a position of importance in horticultural Ines. It is now a leading State in that respect, although its horticultural possibilities have hardiy more than been surveyed. Improvement in grading and packing and a more perfect system of marketing is all that is needed to bring about a development in commercial fruit and nut growing which will divide honors in rexas with the cotton growing industry.

## DRVELOPMENT OF <br> TEXAS HORTICULTURE

(By John S. Kerr, Sherman, Tex.)
Horticulture is very properly termed the finer part of agriculture. It is agriculture intensified. Between the two there is no well defined boundary.

Horticulture primarily means garden culture from hortus, the garden, and cultura, to cultivate. Horticulture is the growing of flowers, fruits, vegetables and of plants for ornament and fancy, as well as utility, comfort and profit.

Belongs to Divernification.
Texas has witnessed four principal epochs, viz: First, the struggle of our forefathers for independence from Mexicans and Indians: second, the epoch of the cattle kings; third, the reign of King Cotton, and fourth, the epoch of diversification. In this latter epoch is where horticulture shines. Long and arduous have been the battles fought and glorious the victories being won by the devotees of Texas horticulture.

Horticalture Divisionn.
Horticulture may be divided into at least four parts.

First-Pomology, the growing of iruites.
second-Trucking, the growing of vegetables, melons, etc.

Third-Floriculture, the growing of ornamental and blooming plants.

Fourth - Landscape gardening. the growing, selecting and the disposing of trees, plants and landscapes for pleasing effects and for utility.

## THE POMOLOGY OF TEXAS.

Most wonderful progress has been made in the last fifty years in Texas, and I venture the prophecy that the next twenty years or less may show a greater pomological development than in the last hall century.

In the epoch of the cattle kings, *Wothing would grow in Texas but grass," and the man who dared wreak the virgin sod agriculturally
was both a fool and a malefactor and liable to dire calamity. In the '70s, '80s and '90s King Cotton gained control. Meanwhile, the fruits of the pomologist with surprising attractiveness and unsurpassing richness of quality won the admiration and hearts of not only consumers at home and abroad, but also the home-builder, the real estate man and the investor, until all classes vied with each other in growing fruit.

The EIberta Propaganda.
The Elberta peach propaganda held full sway along about 1900 to 1910, when every available space and surplus dollar was put into Elberta peaches. Like all such propaganda, the Elberta aircastles of many visionaries crumbled and fell, while rich harvests rewarded the practical orchardist, who gave proper orchard treatment.

Not only the peaches, but the plums, the apples, the pears, the oranges and other citrus fruits, the figs, the berries, all have played important parts in our emancipation from King Cotton.

Four to eight thousand car loads of Texas fruits are shipped to market annually, besides other thousands of cars which are consumed at home, both fresh, canned and preserved.

The value of the fruits of Texas may be conservatively estimated at $\$ 2,000,000$ annually. This does not take into account our nuts and truck crops.

Not since the day when the boll weevil stung King Cotton has there been a greater aid to diversification than fruit growing. And yet Texas pomology is still in its infancy. We have learned what there is in the big infant, what he can do for us, but we have still much to learn how best to care for and conserve him.

## TRUCKING INDUSTRY.

In the passing reigns of the second and third epochs and the inauguration of the fourth, the epoch of diversification, the growing of
vegetables is playing a most important part.

The tomatoes, the watermeions, the cantaloupes, the cabbages, the onions, the cucumbers, the potatoes and the sugar beets are astonishing the world, both as to quality and quantity. They are topping the markets, they are overtaxing the transportation companies, they are enlisting the best talent in the land as to marketing.

## FLORICULTURE.

Time was when all Texas homes were to be deprived of flowers. "You can't grow them here." Thanks to the persistence and perseverance and the faith of Texas florists and others, Texas is now blessed with successful floral and ornamental plants, hardly surpassed by any of our sister States, and many of them peculiarly her own production, "to the manner born."

Texas has a wealth of natural flora and, besides this, our horticulturists have demonstrated that a large class of plants from other sections flourish here. However, many of the old favorites of the North and East do not endure our hot, dry summers. The catalogues of our leading Southern nurseries afford a reasonably safe guide in making selections of flowers for our various sections of Texas.

## LANDSCAPE GARDENING.

Nothing in our Texas horticulture is more marked than the progress of our landscape gardening and nothing more marks the progress of culture and refinement among our people than their appreciation of the landscapist's art, as evidenced in both the selection and the arrangement of trees and flowers upon the landscape to produce beautiful and harmonious grounds in our homes, parks, cemeteries and public places. All of which shows fine advancement of our landscape gardening, and yet there is room for great improvement.

No man now should plant an important place without the aid of a landscape gardener any more than he would build an important house without the assistance of a building architect.

## HORTICULTURAL DISTRICTS OF TEXAS.

The State of Texas is so vast in its area and so varied in its climatic and soil conditions and consequently has such widely varying horticultural resources and adaptions that it is difficult to give a comprehensive presentation of the horticulture of Texas. To aid in presenting the subject to advantage, I have divided the State
into horticultural districts by means of a map, which has been reproduced, and is shown here, and accompanying it is a key explaining the map.

This map has been divided in accordance with the writer's knowledge of these districts and is intended to show only approximately the leading products of each section, and is not expected to be positively accurate in every detail. For instance, section No. 1, the peach and tomato belt of Texas, produces many other fruits, vegetables, nuts, etc., to perfection, and, on the other hand, it is not intended to say that peaches and tomatoes are not profitably grown in other districts, but No. 1 leads in these products, and so of the statements of all other sections.

## KEY TO MAP OF FRUIT DIS. TRICTS.

## District No. 1.

The great peach and tomato belt of Texas, with decided adaptability to plums, pears, apricots, figs, apples, grapes, berries, nuts, etc. This comprises the timbered section of Texas, noted for general farming, pine lumber, etc.

## Districtes Nos. 2 and $21 / 2$.

These districts comprise the great rice field of Texas, well adapted also in many sections to oranges, lemons, pomelos and other citrus fruits, figs, plums, pears, American grapes, strawberries, blackberries, etc. The Alvin section, No. $21 / 2$, has become noted for its great production of berries and figs. This section is also noted for its melons, cucumbers and winter gardens; the land of the mag; nolia and cape jasmine. The soil is largely a heavy dark loam, with sections which are more sandy. Much of the land needs drainage. which is being rapidly provided for. Irrigation, both from streams and from wells, artesian and pumped, is practiced, especially in rice production. Wonderful development, not only in the horticultural, but also in many other lines, is taking place here.

## Distriet No. 3.

This may be considered the western continuation of section 2 . This and No. 11 comprise the great winter garden of Texas. Train loads of cabbages, melons, potatoes and onions are grown and shipped annually. The citrus fruits, pineapples, dates, bananas, palma and other tropical plants, Vinifera or California grapes, the coast peaches, plums, pecans, walnuts and other fruits are grown. The soil for the most part is heavy. dark and rich, with here and there sections more sandy, most all espe-

cially adapted to horticulture. Irrigation from artesian and pumped wells and from streams is pranticed more or less.

## District No. 4.

The rich black waxy section of Central Texas, interspersed with tracts of sandy loam. Noted for grain, cotton farming and stock. Peaches, plums, pears, apples, apricots. American grapes, blackberries, dewberries, strawberries, pecans, walnuts and all the vegetables and melons succeed reasonably well and are grown for home consumption mainly and in many sections are grown commercially.

## District No. 5.

The center of the Red River eruit belt of Texas, comprising that part of the Red River Valley contiguous to Gainesville, Denison, Sherman and Paris. Apples, plums, peaches, American grapes, berries of all kinds, pecans, walnuts, etc., there being quite an area devoted to commercial orcharding, especially to apples, pears, peaches, grapes and berries. Potatoes, both Irish and sweet, and all other vegetables are grown.

District No. 6.
The cross timbers fruit belt from Montague to Hamilton Counties. Noted for fine peaches, plums, apples, pears, berries, grapes, nuts, vegetables, melons, etc. This may
be considered the southwestern extension of No. 5 and No. 7. Many large orchards have been planted. The soil varies from post oak sandy to rich heavy, black waxy. the section of fine farms, comfortable homes and fine orchards.

District No. 7.
The upper Red River district from Clay to Hardeman Counties is the western portion of No. 5 and No. 6. A rich general grain, stock and cotton farming and horticultural country. Produces the same line of fruits as Nos. 5 and 6 to a more limited extent as yet.

District No. 8.
Largely a stock, grain and cot ton country. Is proving to be well adapted to horticulture and to a general line of fruits, vegetables, melons, nuts, etc. There are districts finely suited to all the temperate zone fruits and to gardening. Development is getting well under way.

District No. $\boldsymbol{p}$.
This great area, with San Angelo as its center, may be termed Western Central Texas, now being transformed from the dominion of the cattle kings to the stock farmer, orchardist, etc. The same may be said of No. 10; in fact, of nearly all- of Western Texas. Along the streams and among the mountains of Nos. 9 and 10 are the great na-
tive pecan orchards, which produce and market annually thousands of car loads of pecans. Vinifera, or California. grapes are proving very successful and profitable over much of this area. The mountainous parts abound with wild grapes, wild plums and other fruits, nuts, etc., and with many rare and beautiful native flowering trees and plants, many of Which are proving worthy of cultivation and dissemination. In the prairie or plains sections stock farming is practiced, with many large ranches still intact. Improved breeds and stock feeding is, however, fast displacing the longhorn and all grass methods of the past. Much of this country has proven tinely adapted to the leading rruits, grapes, apples, pears, plums, peaches, berries, melons and vegetables. There are a variety of soils, mostly rich alluvial loam. Irrigation in part is practiced from streams, reservoirs and wells. The elevation of this section ranges from 2,000 to 3,000 feet and gives very salutary climatic effects on rruits, similar to that of the Ozark regions. The dryness. freedom from fungus diseases and cool bracing nights are very conducive to fine fruit production.

## District No. 10.

Is the southern counterpart or continuation of No. 9. The San Antonio country is famed far and near for rich land, fine enterprise, unsurpassed development and healthful climate. No visitor, healthseeker or prospector coming Southwest is content to miss the San Antonio country, and especially the Alamo City. The great cattle ranches of former days are fast giving way to stock farming, fruit and truck gardening and to development enterprises of stupendous proportions. Some of the largest irrigation projects are located here and there is much room, water and fine, cheap land still open to the magic touch of capital and labor.

The Spanish and honey types of peaches, certain hybrid plums, Oriental pears, apricots and some Southern varieties of apples are profitable. The Vinifera, or California, grapes are especially at home and many American grapes. Also blackberries, dewberries, strawberries and fig growing and preserving are profitable; also the citrus fruits are grown in the southern portion.

## District No. 11.

Sugar making, truck gardening and other lines of intensive farming prevail here. The citrus fruits and figs are successfully grown. Spanish and honey peaches and plums produce good results. Pecans and Persian Walnuts are boing largely planted and give
promise of great success, especial. ly pecans. The walnuts should be grafted on our native black wal. nut. This is the home of the Bermuda onion. It first became famous from the large plantings and the splendid yield and fine quality of this section, being first grown near Laredo.

The soil is the deep alluvial deposit of the Rio Grande during past ages, rich as the Nile Valley, and fine irrigation water is sup: plied by the river. Some of the finest irrigation systems of the West are here.

## District No. 12.

No section of our State shows more marked development than the Pecos Valley, which section No. 12 covers. Alfalia is the principal farm crop, but orchard planting is coming into prominence and is the subject of much development.

The apple and pear orchards of the Roswell section, the peaches and other fruits of Carlsbad, the California grapes and orchards of Pecos, Barstow, Balmorhea and Fort Stockton are becoming noted for their abundant yields of the finest quality of fruits. Irrigation prevails from the Pecos River, from artesian and pumped wells and from large reservoirs. The elevation of this country is one of its chief considerations in horticulture.

District No. 13.
Rising from the Pecos and the Rto Grande Valleys, this section comprises the high table lands and mountain districts ranging around 4,000 to 7,000 or 8,000 feet elevation. It is well known that the greater elevations produce the finest fruits, especially apples. This is well demonstrated at Fort Davis, Alpine, Marfa, Valentine and other elevated points.

## District No. 14.

The upper Rio Grande Valley. the El Paso district has made most wonderful strides in horticultural development, and yet development is still in its incipiency. There are pears in this valley planted by the Mission Fathers a hundred years ago. The Bartlett pear here finds its ideal home. The purity of the atmosphere prevents blight and other bacterial diseases, the soil and other things conspire to give the Bartlett its best development. The same may be said of other pears. Apples, quinces, plums and peaches grow as well here, I believe, as in the Ozark regions. Vinifera grapes grow and produce very fine. Many other fruits and nuts grow to perfection.

The near completion of the Elephant Butte dam is destined to make the Rio Grande Valley, both below and above el Paso, one of the richest sections in Texas.

District No. 15.
The Panhandle of Texas is comprised in our Nos. 15 , 16 and 17; the South Plains by 15, the North Plains by 17 and the Lower Plains by 16 .
The California gold hunters of , 49 called this the Staked Plains, the "Desert," after the '49ers came the "cowboys." The cattle barons now have loosened their grip and turned the country over to the stock farmer, the growers of milo maize, alialia and the big red apple. The desert plains. where many once staryed for water, are found to be well watered by both artesian and pumped wells. The soil is ideal. The elevation from 2,000 to 5,000 feet makes the finest quality in fruit.

One must see with his own eyes before he can begin to comprehend the transformation of this wonderful country. It is growing the finest of standard fruits of all kinds.

## In Conclusion.

In so short a space I can only touch on the horticulture of the various divisions. What I have given I believe to be true and conservative.

For further information about any particular section I suggest that those who are interested should write the secretary of the Board of Trade of any of the cities in these districts, who will gladly respond. Also write for catalogues of nurseries in these districts. Your readers will find Texans loyal, intelligent. hospitable, accommodating and with a desire to have others come and share our advantages.

## HORTICULTURE;

CENSUS OF TEXXAS
In 1910 the Federal Census Bureau collected statistics on the acreage of small fruits and the number of fruit trees and vines in Texas, compiling returns in time for early publication in 1913. The production figures secured at that time can apply in a general way only to present conditions. The statistics relative to acreage and trees can probably be considered only approximately correct. In many counties they will hold good in 1913, but in others some changes have been made.

In the peach-growing districts new orchards will about balance the destruction of old ones. In a few cases there are fewer trees now than there was in 1910. The extension of the fruit industry, however, makes up the loss. In many sections of West Texas and the plains there has been a heavy planting of apple, peach, plum and apricot trees. In the Pecos Valley and other irrigated sections a large
increase in vineyards has taken place.

According to the census of 1910 , Texas has $12,560,032$ fruit trees, which produced, commercially, $1,090,233$ bushels of fruit that year.

There were $1,138,852$ apple trees. 9,737,827 peach and nectarines, 558,478 pear, $1,020,339$ plum and prune and 42,384 orange trees, 230,171 fig trees. $1,087,619$ pecan trees, 2,161 acres of strawberries and 2,773 acres of blackberries and dewberries and 712,201 grape vines.

The production for 1910 W ws 168,008 bushels of apples, 729,631 bushels of peaches and nectarines, 110,967 bushels of pears, 75,222 bushels of plums and prunes, 1,802,618 pounds of grapes, 2,411,876 pounds of figs, 10,694 boxes of oranges, $4,207,056$ quarts of strawberries, $1,868,119$ quarts of blackherries and dewberries and 5,832,367 pounds of pecans.

Those who were familiar with grneral conditions in 1910 may find these statistics of some value in estimating production for 1913 and 1914.

Since the census of 1910 new vineyards covering 700 acres, containing 377,300 grape vines, have been set out in the vicinity of Fort Stockton, Pecos County, which increases the figures for the State to 1.087,501 vines. Other plantings will bring the total to nearly 2,000,020 vines.

APPLES, PEACHES, PEARS, PLUMS AND GRAPES.

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| County | $\begin{aligned} & \frac{0}{2} \\ & \frac{0}{6} \\ & \hline \end{aligned}$ |  |  |  |  |
| A | 6,61 | 213,046 | 20,747 | 2,501 | 130 |
| Andrews | 1,076 |  | 3,202 |  |  |
| Aransas |  |  |  |  |  |
| Armetrong | 4,4929 |  | ${ }_{250} 15$ | ${ }_{1,164}^{638}$ |  |
| Atascosa |  | 16,5 |  |  | 6,993 |
| Austin | 1,139 | 1,691 | 3,300 | 1,431 |  |
| Bandera | 54 | 18,328 | i, | 1,920 | \%i8 |
| Bastrop |  | ${ }_{9} 1$ |  |  |  |
| Bee | 129 | 1,816 |  |  |  |
| Bell | 1,496 | 5131 |  |  |  |
| Blanco | 254 | 18,162 | 1,01 | 2,81 |  |
| den | 47 | 50,560 | i 52 |  |  |
| Bow |  |  | 4, | 8,493 |  |
| ${ }_{\text {Brazoria }}$ | 5 | ${ }^{3.381}$ | ${ }_{2}^{17,44}$ |  |  |
| Brewster | 75 | 2,100 | 78 |  |  |
| ${ }_{\text {Brasiscose }}$ | 6,62 | 7,722 | 24 |  |  |
| Brown | 8,7m | 74,266 | 5,2il |  |  |
| Burleson | 395 |  | 1,168 |  |  |
| $\xrightarrow{\text { Burnet }}$ | 229 | 8. | 1,11 | 6,944 |  |
| Calboun : |  |  |  |  |  |
| Camerin |  |  |  |  |  |
| Oamp |  | 78 |  |  |  |
| dess ............... | 17, 723 ! |  |  |  |  |

Apples, Peaches, Pears, Plums and Grapes-Continued.


Apples, Peaches, Pears, Plums and Grapes-Continued.

| County- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ion | 19 | 91338 | 7 | 668 |  |
| Jack | 3,421 | 33,474 | 2,773 | 8,200 | 仿 |
| Jac so |  | $2{ }^{1.673}$ | 2,718 | 13,363 | 175 |
| Jasper ${ }_{\text {Javis }}$ | 1,527 | [ $\begin{array}{r}19,407 \\ 503\end{array}$ | 1,398 | 14,991 239 | 1 |
| Jefferson | 82 | 2 3,981 | 4,946 | 971 | 1 ${ }_{158}$ |
| $\mathrm{Jim}_{\mathrm{Jim}} \mathrm{H}$ Weflil |  |  |  |  |  |
| Johnson | 8.218 | 8 111,486 | 5,098 | 13,98 |  |
| Jenes | 2,629 | (29,988 | 1,254 | 5,129 | 3.173 |
| Karncz | 19 | , 4,234 | 339 | 1,180 | ) 156 |
| Kantman | 7,887 | 7 51.218 | 6,630 4,589 | 4.890 | 13 |
| Kent | 399 | 9) 4,643 | 4,589 | 1,850 | 97 |
|  | 1,075 | 11,388 | 1,761 | 1,604 | 408 |
| Kimble | 458 | 6,637 | 188 | 1,452 | ${ }^{6} 6$ |
| King | 46 | 3,514 | 59 | 293 |  |
| jinme | 31 | 1,101 | - 190 | 342 | 28 |
|  | 177 | 28,583 | 128 | 3,419 | i |
| Lamar | 18,457 | 60,660 | 8,306 | 6,69 | 1,835 |
| Lamb | 1,268 | 840 | 108 | 298 | 33 |
| Lampasas | 441 | 31.382 | 995 | 7,047 | 131 |
| Lavaca | 145 | 17.077 | 2,381 |  | 900 |
| Lee | 308 | 18.054 | 1,853 | 3,046 |  |
| Leon | 1,056 | 71,331 | 2,416. | 1,205 | 1,22 |
| Liberty | 478 | 5.071 | 1,321 | 618 | 126 |
| Limestone | 2,703 | 54,875 | 3,595 | 2,509 | 760 |
| Lipscomb | 1,040 | 2,581 | 105 | 175 | 736 |
| Live Oak |  | 255 |  | 448 | 8 |
| Liano | 101 | 16,274 | 2,497 | 5,119 | \% 4 |
| Loving |  |  |  |  |  |
| Labbock <br> Lynn | - ${ }_{6} 88$ | $\begin{aligned} & 7.900 \\ & 4.851 \end{aligned}$ |  | $\begin{aligned} & 983 \\ & 612 \end{aligned}$ | 38 |
| Madison | 323 | 21,565 | 1,296 | 8,776 | 800 |
| Marion | 2.211 | 45, 180 | 2.307 | 3,401 | 234 |
| Martin | 1,050 | 25.429 | 1.428 | 7,304 | 609 3,683 |
| Matagord | 13 | 1,495 | 1,184 | 71. | 37 |
| Maverick |  |  |  |  |  |
| McCulloc | 651 | 22,662 | 1.140 | 3.303 | 171 |
| McLennan | 2,119 | 95.001 | 14.864 | 9.618 | 1.024 |
| McMullen |  | $6,612$ |  | 90 | ${ }_{7} 1$ |
| Menard | 21 | 3,715 | 142 | 793 | 2,400 |
| Midiand | 128) | 2,226 | 5 | 853 | 445 |
| Milam | 5,287 | 89.989 | 5.135 | 16,607 | 2.009 |
| Mills | 992 | 38.096 | 2,880 | 6,119 | 2 |
| Mitchell | 1.568 | 17.731 | 484 | 8.562 | 1,465 |
| Montague | 46.926 | 224,366. | ${ }^{4.716}$ | 9.825 | 63.533 |
| Montgomery | 2,431 | 10,014 | 2,183 | 2,382 | 1,051 |
| Moore | 218 | 301 | 31 | 15 |  |
| Morris | 5,20 | 56.153 | 1,369 | 711 | 122 |
| Motley | 1,250 | 8.059 | 136 | 446 | 731 |
| Nacoedoch | 5.937 | 146, 63 | 3.9781 | 8.695 | 34 |
| Navarro | 3,366 | 58.603. | 4.229 | 4.2991 | 1.34 |
| Newton | 493 | 15,078 | 688 | 3,654 | 63 |
| Nolan | 932 | 18,609 | 350 | 4,654 | 739 |
| Nueces |  | 163 | 12 | 69 | 105 |
| Ochiltree | 55 | 1,531 | 34 | 647 | 25 |
| Oldham | 1.108 | 208 | 18. | 206 |  |
| Orange | 9,024 | 2,154 | 1,056 | 429 | 180 |
| Palo Pinto | 2.780 | 47.025 | 2.893 | 13.693 | 13,155 |
| Panola | 4.691 | 80,349 | 2,005 | 8,924 | 47 |
| Parker | 7,216 | 108,834 | 7,159 | 15,239 | 12,52] |
| Parmer | 33 | 81 | c | 12 |  |
| Pelk | 2,109 | 21,396 | 2,574 | 1,794 | i |
| Otter | 151 | 424 | 90 | 55 |  |
| Tresidio | , | 682 |  | 28 | 89 |
| Rains | 4.517 | 41.259 | 1,600 | 1.204 | 2584 |
| Randall | 1,779 | 3,697 | 108 | 1.630 | 1,220 |
| Reagan |  |  |  |  |  |
| Rad River | 19,203 | 37,404 | 3,882 | 6,740 | 33 |
| Reeves | 105 | 142 | 85 | 44 | 920 |
| efugio | 10 | 170 | 33 | 12 |  |
| Loberts | 329 | 637 | 40 | 22 |  |
| Robertson | 2,016 | 59,530 | 1,906 | 2,445 | 135 |
| Rockwall | 28 | 6,656 | 465 | 927 | 㷏 |
| Rmnels | 2,922 | 51,112 | $246)$ | 31. | 5,957 |

## Apples, Peaches, Pears, Plums and Grapes-Cuntinued.

| Countr - |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Eank | 1, 145 | 171,963] | 2,351 | 1,548 | 382 |
| Sabine | 1,348 | 16,966 | ${ }^{2}$ | 1.500 | 1,604 |
| gan Augustine., | ${ }_{330}$ | 15.169 | 519 | 1,375 | 9 |
| San Jacmíio ... | 39 | 1, 161 | 1,104 | ${ }^{1,036}$ |  |
| gan saba | 4,86i | 23,873 | 2,023 | 6,607 | 1 |
| gchleicher |  |  |  | 103 | \% |
| Scurty .... | 1,093 | 23,653 <br> 5 <br> 1 | 64 | 3,750 | $3{ }^{3}$ |
| Starctationd | 3,674 | $\begin{gathered} 5,780 \\ 99,913 \end{gathered}$ |  | 19.728 | t 488 |
| Sheliby ${ }^{\text {Sherman }}$ | $\left.\begin{array}{r} 3,674 \\ 85 \end{array} \right\rvert\,$ | ${ }^{99,913} 1$ | 1,799 | ${ }^{19} 102$ | 1,28 |
| Spiith | 48,895 | 815,049 | 10,762 | 14,352 | 2 |
| Somervell | 7,092 | 17,906 | 2,649 | 2,774 | 2,772 |
| Start ... |  |  |  |  | 3, 196 |
| Stephens | 2,727 | 25,012 | ${ }_{20}^{948}$ | 7,545 | 3,196 |
| Stonewall ........ | 688 | 12,330 |  | 1,098 | 39 |
| Sutton | 65 | 1,713 | 27 | 246 | 126 |
| Swisher | 7,337 | 6,246 | 258 | 6,239 | 2.260 |
| Tarrant | 11,509 | 114,492 | 11,841 | 25,43, | 5f,653 |
| Taylor | 2,486 | 46,74 | 1,196 | 15,097 | 7,715 |
| Terrell |  |  |  |  |  |
| Throcki | 1,149 | 3,132 5,98 |  | 1,039 | 343 217 |
| Titus | 10,264 | 104,564 | 1,391 | 3,221 | 365 |
| Tom Green | 242 | 7,565 | 891 | 930 | 1,945 |
| Trapis | 1,476 | 43,613 | 2,663 | 6,283 | 1,189 |
| Trinity | 2,601 | 17,131 | 1,206 | 2,088 | 0 |
| Tyler Uphur | 5 5, 2 243 | 32,831 | 2,122 | 3,490 | 833 |
| Upton | , | 110 |  | 1,256 | 264 |
| Uvalde | 54 | 6,602 | 171 | 796 | 5 |
| Yal Verde | 190 | 458 | 279 | 140 | 10,437 |
| Van Zandt | 42,852 | 153,083 | 2,56 | 6,927 | 694 |
| Victoria | 519 | 5,756 | 1,147 | 2,921 | 1,502 |
| Walker | 596 | 15,838 | 1,097 | 7,331 | 118 |
| Waller | 100 | 2,388 | 535 | 1,363 | 12 |
| Ward | 174 | 6,477 | 225 | 13 | 31,669 |
| Washington Webb | 398 | 8,302 | 1,355 | 2,675 | 22,720 |
| Wharton | 343 | 2,662 | 2,595 | 650 | 108 |
| Wheeler | 3,397. | 11,092 | 348 | 3,363 | 4,507 |
| Wichita | 170 | 11,883 | 167 | 832 | 1,923 |
| Wilbarger | 2,223. | 10,384 | 1,429 | 2,563 | 3,997 |
| Williamson | 982 | 52,383 | 3,162 | 5,273 | 15 |
| $W$ Wilson | 48 | 9,891 | 1,149 | 14,879 | 1,216 |
| Winker | 15,739 | 100,591 | 8.930 | 16,922 | 31, 1.5 |
| Wood | 16,070 | 230,317 | 3,805 | 11,746 | 2,115 |
| Yoakum | 290 | 300 | 12 | 149 | 78 |
| Young | 1,003 | 2, 4337 | 168 | 6,110 | 3,710 |
| Zapata <br> Zavalla | 365 | - .... | 2 | $\cdots$ | 373 |

According to the census of 1910, Texas hes 1,138,852 apple trees, $9,737,827$ peach and nectarine trees, 558,478 pear trees and $1,020,339$ plum and prume trees.
(Note--(a) Brooks County was created from portions of Zapata, Starr and Hidalgo Counties. (b) Cuberson was created from a portion of E1 Paso County. (c) Jim Wells County was created from a portion of Nueces County. (d) Willacy was created from a portion of Cameron and Hidalgo Counties. (e) Jim Hogg was created from portions of Brooks and Duval Counties; Kleberz was created from Nueces County; Real was created from Edwards, Kerr and Bandera Counties. The statistics of these counties are included in tho counties from which they wore created.)
${ }^{*}$ Pecos County is not crodited in this report with having any grapes. Pecos County has several vineyards, conditions being favorable for the production of many varieties.

Eighty-five per cent of all Texas farms reported poultry in the 1910 National census.

## FLGS AND PECANS.

| County- | $\begin{aligned} & \text { Number } \\ & \text { Friges. } \end{aligned}$ | Number Pecan Trean |
| :---: | :---: | :---: |
| Anderson | 229 |  |
| Angelina |  |  |
| Aransas | 105 |  |
| Austin | 921 | 2,807 |
| Bandera | 331 | 10.056 |
| Bastrop | 749 |  |
| Bee | ${ }^{245}$ | 7.292 |
| Bexar | 1,140 | 39, 129 |
| Blanco | ${ }_{35}^{399}$ | 5,345 26,100 |
| Eowle | $\begin{array}{r}35 \\ 452 \\ \hline 18\end{array}$ | - ${ }^{2606}$ |
| Brazoria | 39,136 | ,834 |
| Brown | ${ }^{102}$ | 46, ${ }^{412}$ |
| Burleson | 156 |  |
| ${ }^{\text {Burnet }}$ | ${ }_{404}^{399}$ | 25,1844 |
| Calhoun | ${ }_{7}$ | \%,89\% |
| Callahan | 753 | 17,040 |
| Cass | 390 |  |
| Chambers | 903 | ${ }_{206}$ |
| Cherokee | 499 | 1,808 |
| Clay | 9 | 19,549 |
| Coleman | 55 | 24,923 |
| Collin |  | 1,695 |
| Comarado | 881 496 | 2, ${ }_{2}^{2,638}$ |
| Comanch | ${ }_{89}$ | 23,756 |
| Concho |  | 8,798 |
| Dallas | 129 | 11,185 |
| DeWitt | 332 | 4,449 |
| Denton |  |  |
| Eastland |  | 14, 1488 |
| Ellis | 131 | 13,061 |
| Frath | ${ }_{136}^{68}$ | 10,099 |
| Fannin | 10 | 2,252 |
| Fayette | ${ }^{579}$ | 9,875 |
| Fort Ben | 995 | 1,091 |
| ${ }_{\text {Frio }}$ | ${ }^{428}$ | 6, 1714 |
| Galveston | 62,041 |  |
| Goliad | 102 | 1), 1.597 |
| Grayson | ${ }^{63}$ | 1,603 |
| Gregs |  |  |
| Gruadalupe | 1,443 |  |
| Hamilton |  | 11,501 |
| Harris | 34,722 | 876 |
| Harrison | 568 | 210 |
| Henderson | ${ }_{433}$ | 58 |
| Hidalgo . | 10,457 |  |
|  |  |  |
| Hopkins | 420 |  |
| Houston | 1,288 |  |
| Hunt | 72 | 2,781 |
| Jackson | 549 | 164 |
| Jasper ${ }_{\text {Jefferson }}$ | 2.833 | 830 184 |
| Johnson |  | 2,468 |
| Jones |  |  |
| Karnes. | 151 | 685 |
| Kendall | 135 |  |
| Kerr | 191 | ${ }^{5} \mathbf{5}, 179$ |
| Kinney | 144 | 1,716 |
| Lamar |  |  |
| Lavaca | 1,486 | 31,048 8,718 |
| Leo | 315 | 877 |
| Leon | 9.573 | 62 |
| Limestone | 327 | 963 |



Experiments and demonstrations with the silo in Texas proves that butter and beef can be produced cheaper on a ration of ensilage than is possible by any other method. The silo increases the efficiency of feed more than 15 per cent.

Grapes, properly selected as to cypes, when given attention will prosper in nearly every county in Texas. Interest in the production of this fruit is increasing. Plans have been discussed at Texarkana looking to an encouragement of the industry in Northeast Texas.

## RUBBER FROM COTTON.

A method of making from un. opened cotton bolls a new product, said to be an excellent substitute for hard rubber, has been invented according to a letter to Gov. Colquitt from W. P. Wilson, director of the Commercial Museum, Philia. delphia. The information was extended to the Governor by reason of his position as chairman of the cotton conference of the Southern Governors.
Mr. Wilson wrote that 5 to 10 , sometimes 15, per cent of the cotton crop is often lost by reason of the fallure of the boll to open before the cold weather.
The new method will fully utll. ize these bolls and 3 c to 4 c a pound can be obtained from them, the "substitute for rubber" being manufactured for 10 c to 20 c a pound, considerably less than the cost of the vulcanized article.

This discovery, it was noted. if successful, should prove of great benefit to farmers, bringing substantial returns on that part of the crop now considered a loss.

## FROZEN LADYBUGS.

Several millions of ladybugs, packed in ice-bound crates, came into Chicago by express in the summer of 1913 to attend the International Refrigeration Exposition. The bugs knew nothing about it, for they were frozen beyond feeling. They were shipped to show how refrigeration preserves life.

Benjamin Franklin once observed flies which had been bottled in wine several years which came to life when dried, and he wondered whether men might be made to sleep like Rip Van Winkie. This is done with ladybugs.
Between seasons in California the bugs are stored away in refrigerators, where they remain frozen for several months. Then they are taken out, revived-or brought to life-and set free in the big orchards of the coast to destroy the scalc on fruit trees.

Texas produced in 1913 more than $1,000,000$ bushels of peanuts. The peanut crop is rapidly becoming second to cotton in many sections of the State.

The Secretary of the United States Treasury placed $\$ 2,500,0.00$ in the National banks of Texas in the fall of 1913 to be used in the movement of crops.

The Department of Agriculture estimates that the boll weevil has destroyed $2,550,000$ bales of cotton, valued at $\$ 125,000,000$, since the beginning of its invasion of the cotton belt.

## DEVELOPING THE LIVE STOCK INDUSTRY ALONG NEW LINES

Texas holds first place among the States in the Union in the production of cattle and mules and ranks with the leading States in the production of hogs, sheep, goats and horses. Depression in the cattle markets a few years ago, coupled with the increased cost of production, followed by attractive prices, brought about a decrease in the number of live stock in 'rexas, but changing conditions already give indications of keeping the State in the lead in supplying meat to the Nation.

## PRODUCERS MARKET

FINISFED PRODUCT
The live stock industry of Texas is passing from the era of ranches to one of stock farms. Just as the old free range gave way to fenced pastures are the pastures being cut into large farms and large farms into smaller ones, the live stock farmer is taking the place of the cowman and is sending to market animals worth many dollars more per head than did his predecessor. Those who have made a special study of conditions freely predict that the movement is under way to add largely to the prestige of the State as a producer of live stock and there will be a greater number of animals per square mile than ever in the history of the free range and big pastures.

## Live Stock Frarming.

A great variety of feed crops are either native of or adapted to Texas conditions. Texas can produce feed for many times the number of live stock now within her borders and happily Texas farmors are increasing their acreage of feedstuffs every year. Live stock farming is proving profitable and more certain than any cther line of the industry. Selling the crop on the hoof saves to the farmer the fertility of his soil and brings to him a larger acre value than he would otherwise get.

## An Age of Sllow.

The silo, although something new for Texas, is revolutionizing the agriculture industry without intertering with the raising of cotton and other staple crops long familiar to the Southwest. The silo enables the stock farmer to preserve his feedstuffs against need in wintertime and in timas of drouth and hot winds. It is encouraging the production of more feedstuffs, more and better live stock and permits placing the finished animal on the market at top prices.
Silo building in Texas, with the oxception of a few instances, did not begin to attract attention until 1911 and 1912. Authorities now estimate a total of 1,400 in use. Another year will bring about a large iddition in numbers. In a $f \in \mathbb{F}$
years it is believed the silo will be considered a necessity on every farm where live stock is raised.

## NUMRER AND VALUE

OF FARM ANIMALS
According to the United States agriculture year book, there were 13,393,136 farm animals in Texas in January, 1913. These animals were valued at $\$ 358,189,000$. Compared with the previous year there was a loss of 121,000 animals and an increase in value of $\$ 53,466,000$.

| TTLE IN TEXAS. |  |  |
| :---: | :---: | :---: |
| Number. |  |  |
| 1912 1913 .........1,034,000 | $\begin{aligned} & \$ 41,257,000 \\ & 36,298,000 \end{aligned}$ |  |
| \$4,9 |  |  |
| Other Leading stat |  |  |
| Number Total Value pe |  |  |
|  |  |  |
| w York..1, 458 | 3, |  |
|  |  |  |
| Innesota. 1, ${ }^{\text {a }}$, ${ }^{\text {a }}$,00 | 50,805,00 |  |

In milch cows Texas ranks fourth in total number and seventh in total value.

All Other Cattle.
 - Increase Other Leading States.

| Iowa |  |  | $\mathcal{V a l}$ |
| :---: | :---: | :---: | :---: |
|  | 2,607,000 | \$86.031,00 |  |
| IIIInois | 1,228,000 | 38,682,000 |  |
| Nebrask | 1,002,000 |  |  |
|  | 1,778.000 | 59,385, 000 |  |
| In all | her | - |  |
|  | mber | d first |  | first in number and first in total value.



HORSES AND MULES. Hormen.

| $\begin{aligned} & 1913 \\ & 1912 \end{aligned}$ |  | $\begin{gathered} \text { Total } \\ \text { Value } \\ \$ 96,442,000 \\ 85,692,000 \end{gathered}$ | Value per |
| :---: | :---: | :---: | :---: |
|  | Number. |  | Head. |
|  | 1,158,000 |  | 74.0 |
|  | 23,000 | \$11,150,000 | 8 |

## Other Leading States.



Other Leadins States.

-Decrease.
Other Leading States.
 value.

Sheep.

|  |  | Total | Value per |
| :---: | :---: | :---: | :---: |
|  | Number. | Value. | Hea |
| 1913 | 2,073.000 | \$8,012,000 | \$2.80 |
| 1912 | 2,032,000 | 5,690,000 | 2.80 |
|  | 41,000 | \$42,000 | \$0.10 |

Other Leading Staten.

|  |  | Total | Value per |
| :---: | :---: | :---: | :---: |
|  | Number. | Value. | Hea |
| Montana | S,111,000 | \$18,911,000 | \$3.7 |
| Wyoming | 172,000 | 18,335,000 | 4.1 |
| Ohio | 345,000 | 14.084 .000 |  |
| N. Mexi | 3.300,000 | 10,230,000 |  |

In sheep Texas ranks ninth in number and thirteenth in total value.

Goatm.
The assessment rolls of Texas credit Texas with 866,136 goats. The statistics of the Government give no comparisons with other States. The mohair production amounts to $2,20 ¢, 000$ pounds, valued at $\$ 526,000$.

## Texas Wool Production.

The wool production in Texas varies annualiy between $9,500,000$ to $10,000,000$ pounds, valued at $\$ 2,200,000$ to $\$ 2,500,000$.

Wool is produced in 207 counties, Val Verde leading all others. Southwestern counties, seventeen in number contribute 75 per cent of the total clip. They are Val Verde, Terrell, Edwards, Crockett, Sutton, Burnet, Pecos, Kinney, Kerr, Kimble, Lampasas, Bandeas, Schleicher, Concho, Gillespie, Coryell and Tom Green.

Animals Sold and Slaushtered. Digitized for FR'AGER following table presents
statistics relative to the domesti animals sold and slaughtered on the farms in Texas. These statif tics are for the year 1910 as pub. lished in the United States census Conditions for 1913 indicate about the same movement. The figuren do not include the animals slaugh. tered in the packing houses:

| All domestic animals: Sola Slaughtered | $\left\lvert\, \begin{aligned} & \text { Number } \\ & \text { animals. } \end{aligned}\right.$ | $\begin{gathered} \text { Vahu. } \\ \$ 78,647,809 \\ 15.151,06 \end{gathered}$ |
| :---: | :---: | :---: |
| Calves: |  |  |
| Sold | $512.442$ | 4.003,881 |
| Other cattle: |  |  |
| Sold | 2,535,219 | 52,080,325 |
| Slaught | 64,031 |  |
| Sold | 69,497 | 5,582,276 |
| Mules: |  |  |
| Sold | 70,975 | 7,929, |
| Sold | 3.082 | 146,653 |
| Swine: | 742.769 |  |
| Slaughtered | 885,260 | 13,808, 127 |
| Shepo: | 401.433 | .311 |
| Slaughtered ........ | 9.396 | 26,56 |
| Gosts: Sold | 152.724 | 837,2 |
| Slaughtered | 28,4231 | 51,6 |
| 1899. |  |  |
| All domestic animals: |  | 34,357.2\%5 |
| Slaughtered |  | 11,032.614 |


| Slam | Packing Number. |  |
| :---: | :---: | :---: |
| Reeves | 527.469 | \$15,089,886 |
| Calves | 234.172 | , 0 |
| Sheep | 778.874 | 10,833.08 |
| Hogs | 838,674 | 0,033.06 |

## Totals.

Fort Worth Recelptw.
Following is the latest report of live stock receipts at Fort Worth:

Cattle. Calves. Hogs. Sheen. H.-M 1911..6:0.840 1:92, T13 556,201 186,535 37,36 1012.. 775.321 263,958 387,579 283,914 19,026

Enting Tuly 31.1913 :
$577,143116,207$ 244,082 240,627 20,644

## OPPORTENITIES IN TFIE

## LIVE STOCK INDUSTRY

Conditions in no other State are more favorable for the production of live stock at a profit than in Texas. At the present time Texas is completing the transformation from a ranching country to one of stock farming. More than half the State has thus been changed and ranches in the central west and western sections have been trimmed down to a small fraction of their previous size. Even in those sections where the cowman exists there are farms and every ranch has its fields of feedstuffs and many are building silos.

Fevrer and Better Cattle.
There are fewer but better cat tle in Texas than at any time in its history. The cutting of ranches has had its effect, but the scarcity of cattle and the high prices resulting has done more to deplete
the herds than anything else. The only serious result, however, has been the temptation to sell cows which makes it more difficult 10 pestock ranches and farms.

A Better Live Stock State.
The increasing acreage of feedstuffs, the silo and higher prices is bringing about the live stock farm, and although an increased production will undoubtedly lower prices, experts in the industry state that the finished product will weigh more and cost less per pound to produce and therefore be more profitable to the farmer than cattle raised in the old way and shipped to feeders.

## Cattle and Hogs.

Cattle and hogs, the two leading food animals, are raised in every county in Texas. The best section for either is a matter of opinion. Because of the large pastures, West Texas has been considered the cattle country, but Central and East Texas have many stock farms and all farmers have a few animals. The ease with which feedstuffs are grown in these sections invites stock farming under modern methods.

In the Plains, Panhandle and Pecos countries swine breeding is growing in favor. There seems to be little danger from disease and feed is plentiful, especially in the alfalfa-growing regions. In East Texas and many parts of Central and North Texas the peanut crop is increasing the number of hogs, growers finding them very profitable.
Improvement in class and quality of cattle and hogs has been the aim of farmers and stock growers for a number of years and their efforts have been crowned with success. Texas is producing better animals and receiving better prices every year. Today, while the average price per head is much lower than in some other States, due to the large number of cattle and hogs in Texas, the State is the mecca for buyers of prize animals and Texas cattle receive the blue ribbon in many of the great fat stock shows in the country.

## The Texns Tick.

The Southern States have always had one disadvantage in growing cattle. The Texas tick has cost many millions of dollars, but by simple methods the tick is being eradicated and large areas of the State are free from them. Constant attention to this pest will soon rid the State. (See live stock quarantine article in this section.)

With the exception of the tick in some sections, Texas is an ideal cattle country. An abundance of feed, mild winters, long grazing jeriod, good transportation and near markets makes it an attrac-

Conditions Are Favorable．
In New York and Wisconsin，the greatest dairy States in the Union， dairy animals have proved excep－ tionally profitable under most ex－ acting conditions．Animals must be protected by warm and expen－ sive stables fully seven months of each year and fed during this time from silos and graineries．

In Texas grazing is good from nine to ten months each year，and in some sections some years con－ tinues the full twelve months．In no part of the State are expensive stables required．Feedstuffs are abundant．An almost unlimited amount can be produced．By con－ structing silos animals can be easily provided for during the win－ ter months and during times when grazing is short．Texas offers op－ portunities for successful dairying hardly equaled and never excelled by any State in the Union．

Creameriem Multipliying：
From five to 100 creameries in thirteen years indicates progress in the creamery industry．Others are being successfully established each month．Some new institu－ tions fail，but this is due，not to the absence of a demand for the product or the necessity for the establishment，but to misplaced judgment and sometimes misplaced confidence．Many creameries which fail are constructed without first securing pledges of enough mili and cream to keep it running． There may not be enough dairy animals in that community．Others permilt an agent to sell them from two to three times as large a plant as is needed and consequently money is invested that can not return dividends．

Creameries established in com－ munities where there are sufficient dairy animals to support it and where the people appreciate the value of such an institution are always successful in Texas．

## Milk and Oream．

The product of the dairies in Texas does not all go to the cream－ eries．The consumption of milk and cream in ice cream factories and in cities and towns is enor－ mous．While statistics are not avallable，it is conservative to es－ timate the amount thus consumed as many times greater than the total product taken by creameries．
Dairies near large cities are in－ spected and kept sanitary．The animals are of pure breed and will compare favorably with the best dairy herds in other States．

## Pure Breed of Cattle．

The beginning of the dairy in－ dustry in Texas dates back as far as 1880，which date marks the first importation of pure－bred Jer－ sey cattle，and has advanced steadily until now Texas can boast of over 5；000 registered Jerseys，
as estimated by．Hon．J．J．Terrell of San Antonio．While the number of pure－bred Holsteins in the State Will not near reach this number， the wonderful producing qualitied of this breed is fast making them popular with the farmers．

There are many thousands of graded animals，excellent produc－ ers of milk．

EARM ANIMALS IN TEBXAS． （1913 Assessment．）

| County |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ande | 8，819 | $\left\{\left.\begin{array}{l} 125,34020 \\ \hline 10,5 \end{array} \right\rvert\,\right.$ | ${ }^{46}$ |  |  |
| Angelina |  |  | 4 |  |  |
| Archer |  |  | 61 |  | 洨 |
| Armstrong |  |  | 36 |  |  |
| Austion |  |  |  |  |  |
|  | 414 | 11．93 |  |  |  |
| ${ }_{\text {Band }}$ | 5，773 |  | 115 |  |  |
| Biyior | 6，400 |  |  | 328 |  |
|  | 8，002 |  |  |  |  |
| Be | 20，550 |  | 110 |  |  |
| Bexar | 13,78 |  |  |  |  |
| Blanco | 2，819 |  | 115 |  |  |
| Bosque | 13，805 |  | 11 |  |  |
|  | 8，28 |  | 36 |  |  |
| ${ }_{\text {Brazos }}$ | 0 |  |  |  |  |
|  | 5，457 | ${ }_{53,513}^{8,318}$ | ${ }^{13}$ | ${ }_{4}^{2,585}$ |  |
| Briscoe ． | 4，2 | 24，4 | 22 |  | 2，035 |
| Broois | 3，162 | 2，51 |  |  |  |
| ${ }^{\text {Brown }}$ | 87 |  | 145 |  |  |
| Burne | 7，503 | 18， |  | 59，264 |  |
| Caldw | 11，464 | 7，915 | 31 | 226 |  |
| Calahan | 9，2i2 | i5，43 | 133 |  |  |
| Cameron | 5， |  | 12 | 2，601 |  |
| Camp | 3，426 |  |  |  | 析 |
| Cass | ${ }_{7} \mathbf{7}, 76$ |  |  |  |  |
| Castro | 2，5311 | 15， | 50 |  | ， 47 |
| Chamb | ${ }^{2} 18.511$ |  |  |  |  |
| Childres | 6，711 |  | ${ }^{7}$ |  |  |
| Cl |  |  | 57 |  |  |
| Coke | 5.975 | 15,7 | 9 |  |  |
| Coleman | ${ }^{13,616}$ |  |  |  |  |
| Collin |  |  |  |  |  |
| Collings | 6,800 9,700 |  | ${ }^{2}$ | ${ }^{9} 91$ |  |
| Comal | 4，348 |  |  |  |  |
| Coman | 2， | 1 | 98 | 2，846 |  |
| Concho | 5，219 | ${ }^{16,151}$ | 60 | 34， 14 | 63 |
| Coryell | 13，411 |  | 仡 |  |  |
| Cottle | 4．0400 |  | 15 |  |  |
| Crock | 3.298 | 31．766 | 67 |  |  |
|  |  |  |  |  |  |
| Culbers | 1，80 | 3，30 | 2 |  |  |
| Dallas | 2，210 |  |  | 5，924 |  |
| Dawson |  |  | 35 | 2，388 |  |
| Deat Sm | 2,69 |  | 43 | 37，077 |  |
| Deita |  |  |  |  |  |
| Dek | ${ }^{13}$ |  | 4 | 3，510 |  |
| Dickens |  |  | ${ }^{3}$ | $5.78{ }^{8}$ |  |
| Donley | 4， | 32，20 | 12 | \％ |  |
| $\begin{aligned} & \text { Dunn } \begin{array}{l} \text { Duralioid } \\ \text { Eastlana } \end{array} \end{aligned}$ | 4，0\％ |  |  |  |  |

Farm Animaly in Tecom-Cont.

## Connt 5

 Ect|  |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Horses and


: : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
엳

Houston

ERowa

Hutchinson
Jrion
Jackson
Jeft Davis
Jefferson
Jim Hors
Johnson
Jones
Kanfman
Kend
Kerr ${ }^{\text {Kinde }}$
King


Kamar
Lamb ...
La Ballo
Lee
Leon
Liberty
Limestone
Live Oak
LIano
Loving Cat
bock

Farme Animals in Texnecoint

| Onmer |  | 8 8 8 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Walier | $5,{ }^{2}$ |  | 21 | 1,571 | 4,115 |
| Vollter ............. | 6,551 | 15,24 | 4 | 752 | 2.604 |
| Wiard -...........es |  | 6,178 | 63 | 31 | 63 |
| - | 11. | 12,378 | 158 | 686 | 8,280 |
|  |  | 2, 84 | 19 | 5,845 | 35 |
|  | 12. 51 | 32, 163 |  | 640 | 7.957 |
|  | 5,735 | 26,750 | 53 | 91 | 8,502 |
| Wid | f,051 | 12,113 | 45 | 18 | 2.290 |
| filmater .....aro.0. | - 38 | 14, 690 | 53 | 08 | 3,925 |
| Vilincy ............ | 1,783 | 36,725 | 5 |  | 31 |
|  | 21,601 | 18,827 | 94 | 16,580 | 11,948 |
| Wibeon | 9,752 | 15.057 | 81 | 433 | 4,971 |
| Whnkier ............ | 838 | 8,337 | 3 |  | 118 |
| Wis | 15,000 | 22, 521 | 154 | 1,514 | 7,983 |
| W0e | 8,95] | 13,487 | 35 | 600 | 6,220 |
| Yoalum ............. | 1,437 | 12,565 | 13 | 1,068 | 281 |
| Young .................. | 8,398 | 17,351, | 69 | 1,016 | 2,023 |
| Zapata ............ | 1,736 | 12,328 | 43 | 5,529 | 3 |
| Zavalla | 1,631 | 26,812 | 15 | 1,284 | 981 |

(Note-Live stock numbered and assessed in counties organized in 1913, exeept the county of Kleberg, is included in the statistics for the cornties from which they were created. (a) Live stock figures for Bandera County include count in an area of 184 square miles now a part of Real County; (b) includer count in 888 square miles now a part of Dunn County; (c) includes count in 91 square miles now a part of Real Counts; (d) inciudes count in 45 square miles now a part of Real County.

## TEXAS QUARANTINE LINE AREA CLEAR OF TICKS

Through co-operation of the Federal and State Governments the tick-infested sections of Texas are being gradually narrowed in area. In order to protect cattle in regions not cleared of the tick quarantine lines are established over which cattle from infested regions can not be moved without proper inspection showing them to be free from the insect which is known to cause the splenetic fevar.

The quarantine line in Texas, 48 per proclamation April 7, 1918, is as follows:

Beginning at the mouth of the Sanderson canyon, on the Rio Grande River; thence in a northwesterly direction following said canyon to a point known as Baxter's curve on the Galveston, Houston and San Antonio Railway; thence easterly tollowing said railway to Fldridge; thence north following N. H. Corder's and D. Hart's pasture fence through the eastern part of sections 86, 13 and 12, block A2, Galveston, Harrisburg and San Antonio Railway, across section 1 , Gulf, Colorado and Santa Fe Railway; thence continuing north on the D. Hart pasture fence through the eastern part of sections 16, 17, 46, 47, 76 and 77; thence east along the southern boundary of sections 106, 105, 104, 103 and 102; thence north along the eastern boundary of ractions 102 and 111; thence enst
along southern boundary of seco tions 181, 130 and 129; thence north along eastern boundary of sections 129, 152, 167, 172 and 187; thence east along northern boundary of sections 186 and 185 ; thence north along western boundery of section 195; thence east along the northern boundary of sections 195,198 , 187 and 200 , block $D$, Missouri, Kansas and Texas Extension Rail: Way: thence north following east boundary of the Michael Kim and Charles Woodson surveys to the southeast corner of section 43 , block 1. Texas Central Railway; thence north along the eastern boundary of sections 43 to 49 , in: clusive; thence east along the southern boundary of sections 37, 36, 25, 24 and 19, Texas Central Railway; thence north along the eastern boundary of section 19 to southwest corner of section 7 , block 34, State University lands; thence east along southern boundary of sections 7 and 6 to the southeast corner of section 6; thence north along eastern boundary of sections 6, 5, 4 and 3, block 84. State University lands: thence east along southern boundary of Juan Reyes' survey; thence north along the eastern boundary of said Juan Reyes', Anna McClung's and James C. Blake's surveys; thence east along the southern boundary of sections 21,20 and 7 : thence north along the eastern boundary of sections 7 to 13 , inclusive, block B2, Corpus Christi, San Diego and Rio Grande Narrow Gauge Railway, to the Pecos and Terrell County lines; thence east along the said Pecos and Terrell County line to its intersection with the Pecos River: thence northwesterly alons the said Pecos River to the northwest corner of Crockett County; thence east along the northern boundary of Crockett County to the southwest corner of Irion County: thence north along the western boundaries of Irion, Tom Green and Sterling Counties, to the northwest corner of Sterling County; thence east along the northern boundary of Sterling and Coke Counties to the southeast corner of Mitchell County; thence north along the eastern boundary of Mitchell County to the northeast corner of said county; thence east along the southern boundaries of Fisher and Jones Counties to the southeast corner of Jones County; thence north along the eastern boundary of Jones County to the northeast corner of said county; thence west along the southern boundary of Haskell County to the Kansas City, Mexico and Orient Railway; thence northerly along the said railroad to the right of way of the Fort Worth and Denver CHty Railway; thence southeasterly along the right of way of
said Fort Worth and Denver City Rallway to its intersection with the east line of Hardeman County: thence north along the eastern boundary of Hardeman County to the Red River. On Sept. 1, 1913, the counties of Fisher, Terrell, Hardeman and portions of Crockett, Sterling, Mitchell, Haskell and Knox, an area of 20,000 square miles, were released from quarantine.

## Scab Infested.

Forty-one counties in the Panhandle and Plains, also Nueces. Willacy, Kleberg, Jim Wells and Cameron Counties, are infested with scab to some extent. This trouble is being cared for by the Texas Live Stock Sanitary Commission.

## THRIVING POULTRY INDUSTRY IN TEXAS

Poultry and poultry products add many millions of dollars to the revenue of the citizens of the State. The late census reported the number of fowls on farms as follows:

| Kind. |  | 乐家 |  |
| :---: | :---: | :---: | :---: |
| Chickens | 356.875 | 12,719.572 | 4.138,450 |
| Total. | 357.385 | 13.669.645 | \$4,806,642 |
| Turkeys | 76.425 | 383.686 | 440.526 |
| Ducks. | 14.007 | 244.810 | 126:791 |
| Guines fowls.. | 2- ${ }^{\text {S }} 8$ | $170.10 \%$ | 47.042 |
| Plgeons ...... | 5.581 | 95,625 | 14.638 |
| Ostriches ..... | 222 | 12 | 6000 |

Two hundred and eighteen farms reported 736 peafowls, valued at $\$ 1,919$ : two farms reported twenty pheasants. valued at $\$ 130$. and two farms reported six wild geese, valued at $\$ 7$.

All Domestic Fowis.
Including fowls reported by farms and fowls not on farms. Texas is credited with $22,440,311$ head of poultry. Following are the statistics on poultry and poultry products:
Poultry ralsed
22.440.311

Poultry sold.
5.461,423

Egs produced (dozers).......... 62,479,694
Value of poultry and eggs pro
duced .......................... \$16,129,509
Recelpts from sales of pouitry
and eggs
5.909,942

## BEE AND HONEY

## INDUSTRY IN TEXAS

The bee and honey industry in Texas is of state-wide interest. Of the 249 counties, 202 report colonies of bees. In 1910, the latest year for which official statistics are available, Texas was credited with 238,107 colonies, having a value of $\$ 675,327$. Nine farms out of every
hundred has one or more colonies.
The county of Uvalde reported 7,736 stands, leading all other counties in this industry. Thirtyone other counties reported from 2,000 to over 5,000 stands each. while a large number of counties reported over 1,000 .

Although bees thrive and multiply in all sections, conditions seem to be peculiarly adapted to the industry in Southwest Texas. The rainfall is light, but sufficient to permit the growth of a large number of varieties of flowering plants and at nearly all seasons of the year the prairies and hills are covered with blossoms rich in sweets. Free from Disease.
With the exception of a few cases of foul brood. bees in Texas remain remarkably free from disease. This disease has not secured a dangerous start, and with assistance from the State it is expected that it will soon be eradicated.

COST OF HOG CFOLERA.
Hog cholera prevalls more or less in thirty States and during 1913 cost producers the sum of $\$ 60,000,000$, according to the United States Bureau of Animal Industry. A preventive serum has been discovered and it is hoped that a constant campaigning will finally conquer the disease in this country.

The Bureau of Statistics reports that $\$ 250.000 .000$ was sent out of the United States during the last decade in the purchase of goat skins. Goats of the class supplying skins can be grown in many States of the country.

Midland, Tex.. recelves considerable fame each year because of its thriving industry in raising and training polo ponies. These ponies are shipped East, where they command fancy prices.

Prof. A. D. Millon, chief of the United States Bureau of Animal Industry, predicts a day not far distant when the Tevas cattle fever will be entirely wiped out in all Southern States.

In his report to the Texas Welfare Commission Col. I. T. Pryor stated that $\$ 52,000,000$ worth of meats, both fresh and cured, is imported into Texas annually.

San Angelo, Tex., is the leading wool market in the South. handling on an average over 5.000 .000 pounds per year. The Texas production approximates $10,000,000$ pounds.

What is reported to be the world's largest herd of registered Hereford cattle is known as the Lone Star herd at Midland, Tex.

## TEXAS STATE ORGANIZATIONS, LODGES AND ASSOCIATIONS

Organized effort in improving social, educationil and religious conditions and co-operation in the development of business and the resources of the State is a predominating factor in the life of Texas. There are more than 200 State-wide organizations in Texas and many associations in various counties atid sections of the State. A classified list as complete as could be obtained, together with the names of the executive offlcers and secretaries and thetr postoffice addresses, follows.
(Note-Thls list was closed Dec. 5, 1913.)

## AGRICULTURAL AND LIVE STOCK ASSOCIATIONS

Texas Baby Beef Club AssociationPresident, Sam Mathews, Coleman: secretary, Llovd Webb. Bellevue.

Texas Barred Rock Club-President, W. P. Godirey, Midlothian; secretary, W. J. Newcomb, Fort Worth.

Texas Bovs and Girls' Agricultural Association - President Sam Mathews, Coleman; secretary, Hugh H. White. Tarrant County.

Texas Horse. Jack and Mule Breeders' Association-President, John C. Burns, College Station; secretary, F. W. Bell. College Station.

Texas Cattle Raisers AssociationPresident, A] McFadden, Victoria; secretary. E. B. Spiller, Fort Worth.

Texas Thoroughbred Association-President, G. L. Blackford, Denison; secretary, D. C. Bunbury, San Antonio.

Texas Citrus Growers' AssociationPresident, Dr. H. M. Harrison. La Porte: secretary, Dr. C. Backus, Alpoa.

South Texas Citrus Fruit Growers' As-sociation-President. John Stewart. Houston: secretary, A. J. Elliott, Webster.

Texas Corn Growers' Association-President. H. E. Singleton, McKinney; sceretary, Judge L, Gough, Crosbyton.

Texas Co-operative Poultry Producers: Aspociation-President Mrs. B. G. Kalb. Houston; secretary. Mrs. John Harter, Marshall.

Texas Cotton Growers' AssociationPresident, D. J. Neal. Gorman; secretary. A. P. Smythe, Thornton.

Texas Dairymen's Association-Prestdent, C. O. Moser. Dallas; secretary. J. W. Riageway. College Station.

Texas Dry Farming Congress-President, Benjamin F. Berkeley, Alpine; secretary, Fletcher Davis. Hondo.

Texas Farmers' Boys and Girls' League -President, Sam Mathews. Coleman; secretary. Hugh White, Keller.

Texas Farmers' Congress-President, H. E. Singleton, McKinney: secretary, T. W. Larkin, Beaumont.

Texas Farm Manasement AssociationPresident. J. F. Bradley, Memphis; secretary, A. S. Ware. College Station.

Texas Farm Life Commission-Chalrman, Judge Lindsey, Tyler.

Texas Federation of Fairs-President. T. W. Larkin. Beaumont; secretary. S. N. Mayfield. Waco.

Texas Fig Growers' Association--President, W. A. Stockwell, Alvin; secreary, Dr. Elva A. Wright, Houston.

Texas Hay, Forage and Grain Growers' Aspociation-President, W. B. Gtarr, Cince; mecretary, T. W. Buell. Denton.

Texas Industrial Congress-President, Menry bxall, Dallas: secretary, W, C. Barrickman, Dallas.

Southern Rice Growers* AssociationPresident, W. B. Dunlap. Beaumont; sec. retary, A, C. Wilkins, Beaumont.

Southwestern Sheep and Goat Ralsers Association-President. Johnston Robert. son, Del Rio; secretary, J, Q. Henry, Del Rio.

State Beekeepers' Association-President. B. M. Cathaway, Mathis; selcretary. W. C. Collier, Goliad.

State Colored Farmers' Congress-President. Surry Smith Sr.; secretary, H. J. Mason.

Texas Nurserymen's Assooiation-President, J. S. Kerr, Sherman; secretary, W. B. Munson, Denison.

Texas Saddlehorse Breeders' Association -President, W. I. Yopp. Dallas; secretary. James Miller, Dallas.

Texas State Horticultural SocietyPresident, H. J. Arbenz, Sarita; secretary, D, J, Kyle, College Station.

Texas Herefor Breeders' AssociationSecretary, John Lee, San Angelo.

Texas Angus Avsoclation-Secretary. G. O. Cresswell, Alpine.

Texas Shorthorn Breeders' Association... President. Frank Scofield. Hillsboro; secretary, Stuart Harrison, Dallas (Oak Cliff).

Texas Swine Breeders AssociationPresident, Dr. A. E. Flowers. Dallas: secretary, Edwin W. Houston, Welfare.

Texas Duroc-Jersey Association-President. A. L. Ward, Hagerman; secretary. R. W. Plummer, Burleson.,

Texas State F'air-President. J. J. Eckford, Dallas; secretary, W. C. MeKamy. Dallas.
Texas Truck Growers' AssoctationPresident. Fritz Englehardt. Eagle Lake; secretary. T. D. Walton, Alvin.
Texas Orange Growers' Association-. President, E. Stockwell, Alvin: secretary. J. H. Arbenz. Sarita.

Texas Women's Educational and In. dustrial Association-President. Mrs. Rebecca Henry Hays, Alvin; secretary. Miss Allie T. Hill. Alvin.

Farmers' Educational and Co-operative Union of America for Texas-President. D. J. Neil. Gorman; secretary, A. P. Smythe, Limestone County.

Farmers' Educative and Co-operative Union of Texas-President, W. D. Lewis. Topsy; secretary, A. L. Barker, Stockdale.

## COMMERCIAL AND INDUSTRRIAL.

Association of Teras Railway Accounting Officers-President, J. W. Terry, San Antosto; gecretary. EI. A. Abtrew. Austin.

Commercial and Industrial-Cont.
Associated Advertising Clubs of Texampresident, Gus W. Thomasson, Dallas: meretary, H. C, Bracken, Greenville.

Carpenters and Joiners' Association of Texas-President. D. B. White, Sherman; secretary, J. E. Proctor, Houston.

Commercial Secretaries' Institute-PresIdent, L. M. Ward. Sherman; secretary, B. B. Buckeridge, Fort Worth.

East Texal Development Association-President, Tucker Royal, Palestine; secretary, R. S. Bolton, Jacksonville.

Texal Association of Stationary Engi-neer:-Presldent. J. P. Greenwood. Dallas; secretary, H. 'W. Waters, Dallas.

Employing Commercial Printers of Texas-President, L. B. Clegg, San Antonio; secretary. Henry Dorsey, Dallas.

Employers' Insurance AssociationPresident John S. Radford; secretary. C. P. Coluns, Austin.

Electrical Contractors' Association of Texas-President, A. J. Anderson Fort Worth; secretary, C. M. Cockrell, Dallas.

Lumbermen's Association of Texaspresident, George C. Vaughan, San Antonlo; secretary, J. C. Dionne, Houston.

National Oil Mill Superintendents' As-sociation-President. H. C. Beasley, Grenada, Miss.; secretary. H. E. Wilson, Wharton Tex.

Retall Merchants Secretaries' Associa-tion-President, C. C. Lewis, Cleburne; wecretary, J. W. Thomas, Wichita Falls.

Master Plumbers' Association of Texas -President W. E. Tacher. Fort Worth; secretary, P. J. Sheehan, Dallas.

Texas Travelers' Association-President, W. N. Griffeth, Waco; secretary, W. P. Gilbert, Waco.

Professional Photographers' Association -President, H. J. Braunig. Hallettsville: secretary, A. M. Howe, Ladonia.

Southwestern Mutual Trades Associ: tion-President J. H. Holmgren, San Antonio: secretary, L. J. Black, Beaumont.

Retail Coal Dealers' Association of Texas-President, F. F. La Grave, Fort Worth; secretary, D. B. Mikesell, Dallas.

Retail Merchants Association of Texas -President. Phil Meyers, Palestine; secretary, W.J. Eágecomb, San Antonio.

Retall Monumental Association of Texas -President, W. D. Sedgwick. Dallas; secretary, Roy Anderson, Brownwood.

State Co-operative Warehouse Associa-tion-President, J. E. Cherry Rockdale; secretary. E. F. Shropshire. Llano.

State Federation of Labor-President. Bdward Cunningham, Bridgeport; secretary. John Spencer. Waco.

South Texas Wholesale Grocers' As-sociation-P1esident. Morris Stern. Galveston; eecretary, Alvin T. Lang, Gajveston.

Southwestern Electrical and Gas Asso-ciation-President. G. H. Clifford, Fort Worth; secretary, H. S. Cooper, Dallas.

Southwestern Saddlery and Harness Dealers' Association-President. Gus Heye, San Antonio; secretary, Joe Mireur, Corpus Christi.
Southern Inventors' Association-President, John M. Spellman, Dallas; secretary, J. S. Murray, Dallas.

Southwestern Talking Machine Associa-tion-President, Robert N. Watkin, Dallas; secretary, James S. Camp. Mansum. Ok.
Texas Association Fire Insurance Agents-President. Mabry Seay, Dallas; secretary, W, R.' Ellis. Dalla,

Commercial and Indastrial_Cont.
Texas and Louisiana Rice Millers' is soclation-President, J. E. Broussard, Beaumont; secretary, J. R. Legunec, Beaumont.

Texas Bankers' Assoclation-Nathan Adams. Dallas: secretary. J. W. Hoopes. Galveston.

Texas Bricklayers and Masons' Asso-ciation-President. L. S. Fisher. San Antonio: secretary, Wililam J. Moran. Fort Worth.

Texas Brick Manufacturers Associa-tion-President, C. W. Martin, Fort Worth; secretary, T. M. Harwood, Gonzales.

Texas Bottlers' Association-President. W. G. Freese. Paris; secretary, E. G. Eberle, Dallas.

Texas Commercial Secretaries and Business Men's Association-President, Ben Cain, Dallas; secretary. J. A. Arnold. Fort Worth.

Texas Confectioners' Club-President, John V. Hughes, Dallas; secretary, B. F. Smith, Temple.

Texas Creamery Association-President. George Connely, Houston; secretary, J. W. Ridgeway, College Station.

Texas Cotton Manufacturers' Associa-tion-President. A. L. Smith, Hillsboro. Texas Cotton Seed Crushers' Associa-tion-President. W. F. Pendieton, Farmersville; secretary, Major Robert Gibson. Dallas.

Texas Grain Dealers' AssoclationPresident, T. G. Moore. Fort Worth: secretary, G.J. Gibbs, Fort Worth.

Texas Hardware and Implement Asso-ciation-President. W. B. Howell, Waxahachie; secretary. Henry Marti. Dallas. Texas Hardware Jobbers' AssociationPresident, John L. Kelth, Beaumont; secretary, to be appointed.

Texas Hotel Keepers' AssociationPresident. F. M. Swearingen, San Antonio; secretary, B. S. Swearingen, Houston.

Texas Laundrymen's Club-President, Eugene Cherry, Sherman; secretary. W. A. Johnson, Galveston.

Texas Life Convention-President, A. S. Doerr, Dallas: secretary. B. P. Bailey, Paris.

Texas Midcoast Congress-President, F. J. Hardy. El Campo; secretary, H. A. Clapp. College Port.

Texas Motion Picture Exhfbltors-President. J. S. Phillips. Fort Worth; secretary, Harrv Gould, Dallas.

Texas Ontical Association-President, A. F. Thompson, Dallas; Fred R. Baker. San Angelo.

Texas Pharmaceutical AssociationPresident, John A. Weeks. Ballinger; secretary, E. G. Eberle, Dallas.

Texas Pharmacists. Ladles' AuxillaryPresident. H. C. Jackson, Austin; secretary, Miss Lum Shid, San Marcos.
Texas Poster Advertisers' AssociationPresident. Alf A. Edwards, Waco; secretary, J. O. Bell, Denton.

Texas Press Association-President, J. J. Taylor. Dallas; secretary. Sam P. Harben, Richardson.

Texas State Association of ArchitectsPresident. H. A. Overbeck. Dallas; secreLary, D. F. Coburn, Dallas.
Texas State Federation of Labor-President, Ed Cunningham, Bridgeport: secretary, John R. Spencer. Waca

## Commercial and Indumtrial-Cont.

Texas Stite Ginners' AssociationPresident. Frank W. Jackson. Renner: secretary, Dabney White, Tyler.

Texas State Printers' Council-President, A. D. Thompson, San Antonlo; secretary. A. A. Clark. Palestine.

Texas State Realty Association-Presldent, T. H. Barrow, San Antonio: secretary, R. W. E. Thomeson. Austin.

Texas Transfer Men's AssociationPresident. Q. M. Mintor, Paris; secrelary. A. S. Wagner, Dallas.

Texas Women's Bankers' AssociationPresident. Miss Minnle Hester. Lexington; secretary. Miss Arna L. Allen, Texarkant.

Texas Women's Press AssociationPresident, Mrs. F. M. B. Hughes. Wharton; secretary. Mrs. Fred Scott, Austin.

United Master Bekers' Association of Texas-President, Ed Goodman. Dailis; gecretary, S. W. Plaughaupt, San Antonio.

## WRATRERNAL

Ancient Order United Workmen, Grand Lodge of Texas-Grand master workman, French 0 . Smith. Gonzales; grand recorder, Z. M. Duckworth. Dallas.
Association of Texas Clubs-President, J. L. Peeler, Austin; secretary, W. E. Fitzgerald, Austín.

Catholic Knights of America, State Council-President. M. E. Seay, Galveston; secretary. P. C. Goebel, Taylor.

Grand Chapter of Texas. Order of Erastern Star-Grand matron, Mrs, Carrie A. Chase, Galveston; grand secretary, Mrs. Cassie C. I,eonard, Fort Worth.

Grand Commandery, Uniform Rank, Knights Templar-Eminent grand commander, J, J. Davis, Gplveston: grand recorder, John C. Kidd. Houston.

Grand Chapter of Texas Masons-Grand high priest, D. W. Glasscock, Mission; grand secretary. Tom Bartley. Wacu.

Grand Lodge of Odd Fellows, I. O. O. F.-Grand warden. Dr. E. A. Jonnson, Corsicana; grand master, W. R. Francis, Fort Worth; grand secretary, W. W. Walker. Dallas.

Grand Lodge of the Sons of Hermann-President, August von Haxthausen, Houston; gecretary, John Windlinger, San An. tonío.

Great Council of the Improved Order of the Red Men-Great sachem. William G. Byres, Austin; great chief of records, C. P. Stafford, San Antonio.

International Order of Good TemplargGrand chief tempiar, W. G. Heath, Mingus; secretary, E. J. Moffitt, Dallas.

International Travelers' AssociationPresident, Price Cross, Dallas; secretary, W. M. Handcock.

Grand Lodge I. O. O. F. of TexasGrand master, Marcus W. Davis, San Antonio; grand secretary, W. H. Walker, Dallas.

Grand Encampment, I. O. O. F. of Texas-Grand patriarch, L. G. Christopher, Abilene; grand scribe, Charles L. Sauer, San Antonio.

Knights of Columbus-State deputy, Jaseph $P$. Landry, Beaumont; necretary, Mr. Schneider. Austín.

Grand Iodge, A. F. \& A. M.-Grand master, A. W. Houston, San Antonio; grand secretary, W, B, Pesrson, Nacogdoches.

## Fratermal-Continued.

Knights and Ladies of Honor of Texan - Grand protector, Mrs. Marle J. Cole Dibss; grand secretary. Dr. J. Burgheim Fouston.

Knights of Honor (Grand Lodge) Grand dictator, M. L. Potash, Victoria; grand reporter, J. B. Wolf, Cameron.

Knights of the Maccabees of TexasSlate commander, J. B. Sawtell, Wact record keeper, L. O. Harvey, Dallas.

Knights of Pythias of Texas-Grand chancellor. Tom Connolly, Marlin; grand keeper of records and seal, Henry Miller, Wextherford.

Pythian Sisterg-Grand chief, Mrs. I , H. Buck. Fort Worth; grand mistress of seals and records, Mrs. Flora Hey. Mar shall.

Rebekah Assembly of Texas-President, Mrs. John House, Fort Worth; secretary. Mrs. Ida Murphy, Corsicana.

Supreme Lodge, United Benevolent As sociation-Fresident, E. S. Royal, Fort Worth; secretary, J. A. Conner, Fort Worth.

Texas Drug Travelers' AssociationPresident, J. E. Gallagher, Houston; sece retary, E. G. Eberle, Dalla

Travelers' Protective Association of America, Texas Division, Benevolent League-President, George D. Bennett, Dalias.

Travelers' Protective Association-President, J. V. Hardy, Dallas; secretary. F. N. Palmer, Dallas.

Texas State Aerle Eagles-President A. C. Opperman, Palestine; secretary. W. T. Souter, San Antonio.
-Texas State Senate of PraetoriansPresident, B. E. Looney, Fort Worth; secretary, Jessie Smith, Coleman.

Woodmen Circle of Texas-Grand guardian, Mrs. Maggle Hyde. Fort Worth; grand clerk, Mrs. Minnie Kerr, Terrell.

Woodmen of the World-Head consul, H. W. Wiseman, Cleburne; head clerk H. Russell. Mineral Wells.

United Commercial Travelers of Texas -Grand senior counselor, W. N. Griffith. Waco; grand aecretary, W. P. Gilbert. Waco.

## MEDICAK.

Texas State Dental Association-Prestdent, Dr. Frank Forman, Waco; secre tary, Dr. J. G. Fife, Dallas.

State Homeopathic Medical Association of Texas-President, Dr. C. C. Bowes, Greenville; secretary, Dr. Julia E. Bage Austin.

Texas Eclectic Medical AssociationPresident, Dr. W. H. Walker, Killeen: secretary. Dr. Rosa B. Gates, Waco.

Texas Osteopathic Association-President, Dr. A. J. Tarr, Minerai Wells; secretary, H. B. Mason, Temple.

Texas Association of Medical Directory -Presiaent. Dr. Whitfield Harrell, Dal. las; secretary, Dr. M. M. Smith, Dallas.

Texas State Medical Associacion-Prestdent, Dr. Marvin L. Graves, Galveston secretary, Dr. Fiolman Taylor, Eort Worth.

## PATRIOTIC.

Daughters of the Republic of TexamPresident. Mrs, R. J. Fisher, San Antonio: secretary, Mrs. M. W. McDonald, Austin.

## Patriotic-Continued.

Grand Army of the Republic. Texas pivision-Commander, Sianey Tuttle, San Antonio.
Hood's Texas Brigade-Presideni, W. J. watis. Palestine; secretary, Miss Katie Daifan. Austin.

National Society United States Daughters of 1812 in Texas-President, Mrs Miston Morris, Austin: secretary, Mrs James H. Maxwell, Austin.

Parson's Brigade-Commander. Judge Joe M. Barry, Hubbard City; Adjutant, George H. Hogan, Ennis.

Shelby and Quantrell Veterans Asso-ciation-Commander, $\mathbb{R}$. S. Kimberlain, Childress; Adjutant. Henry Gillion, Altus, Ok.

Spanish War Veterans, Department of Texas-Commander, W. C. Lothrup, Galreston; Department Adjutant, W. J. Murphy, Galveston.

Texas Division. United Confederate Vet-erans-Commander, Major Gen. Felix Robinson. Crawford: Adjutant General, Robinson. B. Wrawford; Heems. Houston.

Terry's Rangers-President, John W. Hill, Smithville; secretary, C. G. Caldwell, Austin.

Texas Society Sons of American Revo-lution-President, E. T. Harris, Galveston: secretary. W. S. Mayer, Galveston.

United Daughters of the ConfederacyPresident, Mrs. Charleg L. Hamil, Longview; secretary, Mrs. J. K. Blvins, Long view.
Women's Relief Corps. Texas DivisionPresident. Mrs. Mary Rockholdt. Dallas.

## RELIGIOUS.

Baptist Toung People's Union-President. Walter T, Davis, Waco; secretary. E. E. Lee, Dallas.

Baptist Missionary Convention-Corresponding secretary, W. W. Scales, Dallas.

Baptist Women's Mission Workers' As-sociation-President, Mrs. $\boldsymbol{E}$. Davis, Dallas; secretary. Mrs. A. F. Beddoe. Dallas.

Baraca-Philathea Association of Texas -President, Dr. John A. Hold, San Marcos; secretary, Robcrt Jolly, Dallas.
Baptist General Convention of TexasPresident. Dr. R. C. Buckner. Dallas secretaries, D. R. Peyolo, Houston, and G. O. Key, Farmersville.

Christian Endeavor of Texas-President. Patrick Henry Jr. Wichita Fails; secre tary, E. M. Friedl, Port Arthur.

Daughters of the King-President, Mrs. Ridley. Houston; secretary, Miss Kittrell, Eoustón.

King's Teachers' Association of 'PexasPresident, Rev. S. J. Porter, Dallas; secretary, Rev. W. ED. Foster, Dallas.

German Hivangelical Lutheran SynodPresident, Rev. F. Hempelman, Waco; secretary, Rev. J. C. Reiger. San Antonio.

German Lutheran Synod-Fresident. Rev. William Wolfsdorff, Yoakum; secre tary, Rev. R. Heise, La Grange.

King's Daughters and Sons of TexasPresident, Mrs. H. E. Pye, Georgetown; secretary, Mrs. E. S. Hale, Georgetown.

Lone Star Conference of Congregational Churches-Moderator. William M. Fiurlbut, Friona; scribe, John W. Logan, Dallas.

Lutheran Leasue-President, Rev. R. A. Sagabiel, Brenham: secretary, Miss Clara Haskarl, Galveston.

## Religions-Contimmed.

Salvation Army, Department of TexasMajor, John C. Smith, Dallas; secretary Grace A. Smith.

The Older Boys' Conference_-President, Homer Sharp. Fort Worth; gecretary, Eli Minton, Sherman.

Texas Christian Missionary Convention -President, Rev. E. S. Bledsoe Temple; secretaries, Arthur Jones, Dallas, and Logan Martin, Fort Worth.

Synod of Texas, Presbyterian Church, U. S.-Moderator, Rev. Brooks I. Dickey. San Antonio; stated clerk, Rev. J. D. Leslie, Cisco.

Synod of Texas, Presbyterian Church, U. S. A.-Moderator Rev. R. H. Rogers, San Antonio: stated clerk, Rev. S. M Templeton. Clarksville.

Texas Christian Women's Board of Mig-sions-President. Mrs. G. D. Smith, Dal las; secretary, Mrs. Terry King, Fort Worth.

Texas Eppworth League-President. Gus W. Thomasson, Dallas; secretary, Laton Bailey, Dallas.
Texas Home Missionary Committee (Congregational)-Chairman, T. J. Jones Dallas; secretary, E. M. Powell, Dallas

The Gideons of Texas-President, T. P. Esstiand. Dallas; secretary, P. L. Russell, Dalias.

Texas State National Spiritualist Asso-clation-President, Mrs, Carrie M. Hinesdale, Fort Worth; gecretary, Mrs. W. W. Blasingame, Fort Worth.

Texas Methodist Sunday School Confer-ence-President, Rev. E. Hightower, Weatherford; secretary. W. C. Everett, Dallas.
Texas Student Voluntary Union-Presi dent. L. H. Norton, Austin; secretary. Miss Anna Doggett, Aurtin.

Texas Women's Christian Temperance Union-President, Mrs. Nannie W. Curtis. Waco: secretary, Mrs. Josephine Collins, Groesbeck.

Texps Young Men's Christian Associa-tion-Chairmsn, William A. Wilson Houston; State secretary, L. A. Collier Dallas.

Texas Y. M. C. A. Employes' Associa tion-President, Henry M. Johnson, Dallas; secretary, T. W. Curry, Austin.

Texas Zionists' Association-President J. Jacobs, Fort Worth; secretary, Miss Lydia Littman, Galveston.

Southwestern Division of the Young Women's Christian Association-Execu tive secretary, Miss Mable K. Stafford, Dallas.

Women's Methodist Missionary Society -President, Mrs. O. L. Mcknight, Center; secretary, Mrs. George Call, Orange.

## MISCELEANEOUS.

Anti-Saloon League of Texas-Preatdent. Dr. G. A. Boaz, Dallas; secretary, J. T. McClure. Dallas.

Association of the Deaf of Texas-President, R. M. Hodges. Dallas; secretary, William Davis. Austin.

Association of Texas Clubs-President John L. Peeler, Austín; secretary, W. W. Fitagerald, Austín.

County and District Attorneys Asso-ciation-President, Jonn W. Bagkin Jr. Fort Worth; secretary, J. B. Hatchitt, Lockhart.

County and District Clerks Association of Texas-President, J. C. Gengler, Galveston; secretary, Mise Mary Phillipi, Ballinger.

## Miscellaneous-Continued.

County Judges' and Commissioners' As-sociation-President, J. P. Haynes, Cleburne; secretary, F. X. Woodward, Dallas.
Fast Texas Good Roads AssociationPresident. G. A. Bodenhelm, Longview; secretary: A. L. Hatch, Palestine.
Fire Marshals of Texas-President, A. W. Inglish. Austin; secretary. A. W. Penninger, Fort Worth.
German Texas Singers League-President, Charles Fretz, Dallas; secretary, Joe Arbruster, Dallas.

Guif Coast Educational AssociationPresident, M. Monger, Corpus Chrlstl: secretary, C. G. Hallmark. Robstown.

Interstate Inland Water League-President, C. S. Holland, Victoria: secretary, Roy Miller. Corpus Christl, for Texas; Leon Lock. Lake Charles, for Loulsiana.
Lone Star Association of the DearPresident, A. O. Wilson. Austin; secretary, Harvey L. Ford. Waco.
Postal Clerks of Texas-President, Jerf Smith, Dallas; secretary, B. M. Ratliff, Fort Worth.

Postmasters' League of Texas-President. A. S. Davis, McGregor; secretary. Sam G. Reid, Oglesby.

Texas Postmasters' Association-President, W. G. McClain, Waxahachle; secretary. S. S. MeClendon, Tyler.

Rural Letter Carriers' AssociationPresident, John L. Rundell. Austin; secretary, Robert S. Palmer, Hawley.

Texas Editorial Association-Presldent, Frank P. Holland Dallas; secretary, John R. Riansone Cleburne.

Texas Fedaration of Women's ClubsPresident, Mrs. Henry B. Fall Houston: secretary, Mrs. W. C. Corbett, Houston.

Sheriffs' Association of Texas-President. W. R. Crane. Faufman; secretary, Miss Lydia M. Kirk. Austin.

Renters' Union of America. Texas Divi-sion-President. J. C. Smith, EI Campo; secretary, E. O. Meitzen. Hallettaville.

League of Texas Municipalities-President, A. P. Woolidige, Austin; gecretary, Dr. James G. James, Úniversity of Texas.

State and County Tax Collectors' and Assessors' Association-President. Porter Stevens, Cameron; secretary, George I. English, Greenville.
Texas Library Association-President, E. W. Winkler. Austin: secretary, Mrs. M. C. Houston, Corsicana.

Old Fiddlers' Association of Texas and Oklahoma-President, Henry C. Gilliland, Altus, Ok.; secretary, Jesse Roberts, Springtown, Tex.
State School Trustees' AssociationPresident, F. L. Alton, Round Rock; seoretary. T. W. Parker, Bryan.

Southwestern Waterworks AssoclationPreaident, Pat Bracken Temple; secretary, E. L. Fulkerson, Waco.
Texas State Teachers' A AsoclationPresident. R. L. Paschal. Fort Worth; mecretary, Lee Sturgeon, San Antonto.
Tearag Abstracters' Association-Prestdent, J. B. Price. Weatherford: secretary, O. W. Yates, Anson.
Texas Academy of Sclence-President, Prof. Trops, College Station; secretary, Dr. 1. M. Lewis, Unlversity of Texas.
Texas Bar Assoclation-Presldent, W. W. Searcy. Breaham; mecretary, J. B. Ceve, Dallia.

## Miscellaneous-Continued.

Texas Folklore Society-President, W. H. Thomas, College Station; secretary. John A. Lomax, Austin.
Texas Children's Home and Ald so-clety-President, F. G. McPeak. Fort Worth; secretary. Miss Florence Dibrell, Fort Worth.
Texas Circulation Managers' Associa. tion-Fresident. M, W. Florer Dallas; secretary, Harold Hough, Fort worth.

Texas-Georgians' Association - Prestdent, Bishop Joseph S. Key Sherman; secretary, Millard Lewis, Dallas.

Texas City Marshals and Chiefs of Po-lice-President, W. L. Sallis. Brenham: secretary, C. W. Newby, Fort Worth.

Texas Shorthand Reporters' Association -President. W, H. Graham, Abilene; secretary, Henry Mings, Tyler.

The Conference for Education in Texas-President, Clarence W. Ousley, Fort Worth; gemeral agent, Lee Clark, Austin.

Texas Constables' Association-President, F. A. Wilis Caldwell: secretary. C. S. Compton, Gainesville.

Texas-Ohio Club-President, George A. Harmon, Dallas; secretary, $\mathcal{F}$. J. Geller, Dallas.

Texas Firemen's Association-President, I. B. Warren, Belton: secretary, W, P. Walker, Luling.

Texas Funeral Directors' and Embalmers' Assoclation--President, J. L. McCarthy, Houston; secretary, Colby Smith. Dallas.

Texas Game and Fish Protective Asso-ciation-Presldent, W. Goodrich Jones. Temple; secretary. Dr. F. A. Kent, Austin.
Texas Good Roads Association-President, J. W. Warren $\operatorname{San}$ Antonio; zecretary, Homer D. Wade, Stamford.

Texas Half Century Association-President, J. F. Battle, Dallas; secretary, Lee Hughes, Dallas.

Texas Hotel Clerks' Association-President, C. C. Wheeler, Houston; secretary, E. E. Walker, Fort Worth.

Texas Intercollegiate Association-President, Dr. C. C. Gumm, Fort Worth; secretary, George A. Newton, Waxahachie.
Texas Rotary Club-President. Lowin Plunkett, Dallas; secretary, Dr. L. K. Peck, San Antosio.
Texas State Humane Society-President, Hon. J. D. Sayers, Austin; secretary, Mra. Olive Hall-Butler, San Antonio.

Texas State Letter Carriers Associa-tion-President, G. A. Dean, Galveston; secretary, William V. Jones Fort Worth,

Texas Sacred Harp Association-Pressdent, W. T. Coston, Dallas: secretary. C. D. Chaffin, Dallas.

Texas State Society of Public Account-ants-President, D. H. Kernaghan. Fort Worth; ecretary. C. E. Scales, Fort Worth.
Texas Women's Suffrage AssoctationPresident, Miss Eleanor Brackenridge, San Antonio; secretary, Miss Marion B. Fenwick. San Antonio.
The Texas Conservation Congress-President. Ed R. Kone. Austin; secretary, Will L. Sargent, Fort Worth.
State Conference of Charities and Cor-rections-President, Charles $S$. Potts, CoIlege Station; secretary. R.J. Newton, Austro.

## MISCELLANEOUS MATTERS OF INTEREST CONCERNING TEXAS

This section of the Texas Almanuc contains many matters of interest concerning Texas which could not logically be placed in the various classifications in other sections. They should prove none the less interesting to readers who desire a full knowledge of the State, notwithstandmg their miscellaneous cheracter.

## VTTAL STATMSTICS

YEAR ENDING AUGr. 30
During the year ending Aug. 30, 1913, there were born in Texas 52,642 persons. During the same period there were 26,592 deaths, births over deaths amounting to 26,054. Classified as to color, there were 48,238 white births and 4,408 negroes; deaths, 22,088 white and 4,504 negroes. There: were 26,150 more white persons born than died and 96 more negroes died than were born. Following are the statistics by months:

| Month, 1912 | White. | Brk. | White. | Bik. |
| :---: | :---: | :---: | :---: | :---: |
| September | 4.775 | 438 | 1,350 |  |
| October | , |  | 1,594 |  |
| Decem | 3,565 | 296 | 1,871 |  |
| Janary | 18 | 396 | 2,414 | 1 |
| February | 4,1598 | 389 | 2,198 | ${ }_{9}^{6}$ |
| Aril | 937 | 317 | 1,773 | 359 347 |
| Jane | 8,181 | 268 | 2,738 |  |
| July | 3,997 | 381 | 1,878 | + |
| gust |  |  |  |  |
| Grand to |  |  | 22,088 | , 504 |

## PUBLIC LANDS AND

THE LAND DEAPARTMENT
Between the years 1540 and 1835 the Kingdom of Spain and, in turn, the Republic of Mexico made grants of land in the province of Texas amounting to 26,280,000 acres. Following the admisslon of Texas into the Union the United States Government paid Texas $\$ 10,000,000$ for claims on $67,000,000$ acres in New Mexico, leaving a remainder of $211,646,080$ acres in the Texas public domain.

Repoblic Land Grantm.
Under the Republic, land grants of $36,876,492$ acres were made to settlers, soldiers of the Mexican War or sold to citizens of the States in the form of land scrips at 50c per acra. The land sold amounted to $1,329,200$ acres. Land amounting to $4,494,806$ acres was paid to immigrant agents on contract and 27,000 acres for the construction of a railroad, which was never bullt. Three leagues (13.284 acres) was given to each county for educational purposes and fifty leagues set aside for a State university. Several other grants for
educational purposes were made, the total land thus disposed of under the Republic amounting to more than $50,000,000$ acres.

The General Land office.
A General Land Office With eleven suboffices was established in 1836, but the suboffices never became operative. The first patent Issued by the General Land Office was to Michael B. Menard for a portion of the east end of Galveston Island, which he had purchased for $\$ 50,000$. This patent was issued in 1838 and was the last until 1841.

## Texas as a State.

In 1854 the State offered sixteen sections of land for every mile of railroad constructed and put in operation, the railroads to survey an equal portion for the State. In this manner $32,800,000$ acres were disposed of. Later the State gave its land to the school fund. Industrial enterprises were aiso encouraged by land gifts to the amount of $4,061,000$ acres, while a total of $4,847,136$ acres was donated to settlers and 100,000 acres to each of the eleemosynary institutions.
By the adoption of the present Constitution in 1876 one-hali of the then public domain and all the lands surveyed for the State by the railroads and industrial companies was given to the public school fund. The other half was reserved by the State for further disposition. The university recelved $1,000,000$ acres, $3,050,000$ acres were set apart for the State Capltol, 1,169,132 acres were given to the veterans of the Texas revolution, 1,979,852 acres to disabled Confed: erate veterans and their widows. $1,660,936$ acres were sold to pay the public debt and $1,439,100$ acres were given to the counties for school purposes in addition to what they had received previously.

The total land given for school purposes approximates $4,229,166$ acres and for the public school fund $45,000,000$ acres. The total amount of land given for educational purposes of all kinds approximates $52,000,000$ acres.

## Sale of School Landm.

Up to the present time about 42.000 .000 acres of school lands has been sold. There remains practically 1,500,000 acres of surveyed land, most of which lies in the mountain regions. Lands have been
sold on long time, the money recelved in yearly payments being invested in interest-paying bonds, the revenue of which is distributed to various countles and school districts in the support of the pubula schools.

## LAND OLFFICE OPREATIONS. (1912-18)

A. book published every year by the State under the name of "Abstract of Texas Land Titles" in a limited way is a reflection of the operations of the Land Office. The primary purpose of the publication is to enable County Tax Assessors to male correct assessments of land. Volume 36 is now being complled.

During the year 1,480 tracts of school land, containing 601,650 acres, were paid for and patented; 142 tracts of other land, containing 76,976 acres, were patented. The foes for this service aggregated $\$ 9,645$. When all requirements of the law with respect to a tract of land are met a patent (or deed) signed by the Governor and the Commissioner of the Land Office is issued to the owner.

The sales of surveyed school lands aggregate 419,476 acres., The sales of "unsurveyed or scrap" land amount to 27,507 acres. The first payments, being one-fortieth of the principal, amount to $\$ 60,846.17$. There remain unsold approximately $1,500,000$ acres of surveyed land, but it lies in the mountainous region of the West and very little, if any, of it is suitable for settlement.

## Fayment for Land.

Since Sept. 1, 1909 , payments for land have been made to the Land Commissioner instead of to the State Treasurer. Immediately on receipt, money is ifsted and transmitted to the Treasurer to be held for final disposition on instructions from the Land Office., During the year the sum of $\$ 2,588$,585.02 was handled in this way. Of this amount $\$ 2,411,045.72$ was deposited to the credit of various funds and $\$ 170,819.21$ returned to the remitters, leaving a balance of $\$ 6.182 .49$ for further disposition.

Under the law now in force 80 per cent of interest receipts from school land becomes at once avallable, and during the year $\$ 1,530$,466.75 went through the Land office to the Treasury and then into every school district in the State to pay the teachers. Under the former law collections from this source were not available until near the end of the scholastic year.

## Printed Lists.

Twice a rear lists showing school lands coming on the market are printed for free distribution. Those interested in such matters can ob-
tain a list by writing the Commis. sioner. Perhaps about March 1 the next list will be ready.

Relative to Mineralm,
An important law was passed at the reqular session of the ThirtyThird Legislature relating to pros. pecting and developint minerals contained in the public lands. Much of the school land has been sold With the reservation of the minerals to the State. This law provides for the sale of minerals in such cases and for the sale of minerals to be found in the unsold school land and In the Inland lakes and coast waters.

## STATE LAND RKEPORT.

The State Treasurer reports receipts from land sales and leases during the fical year ending Aug. 31, 1913, as having totaled $\$ 2,629$.: 056. 55 . Of that amount $\$ 2,436$,763.10 was deposited, $\$ 179.194 .29$ returned because of errors or conflicts and $\$ 13,099.16$ is held awajting disposition.
The amount deposited is distributed among various speclal funds, permanent and avallable, and the exact credits in each instance were as follows:

| Permanent school fupd....... ${ }^{\text {Available school }} \mathbf{6 0 0 , 5 0 4} 81$ 1.552 .938 |  |
| :---: | :---: |
|  |  |
|  | $\begin{array}{ll}\text { Available school fund........ } \\ \text { First payments on school iand } \\ \mathbf{1 , 5 5 2}, 832 \\ \mathbf{5 4 , 9 7 0} & 60\end{array}$ |
|  |  |
| Permanent university fund... 158,873 44 |  |
| Permanent Deal and Dumb |  |
| Asylum fund $\ldots \ldots \ldots \ldots$. ${ }^{\text {a }}$, 48522 |  |
|  |  |
|  |  |
|  |  |
| Permanent Orphan Asylum fund ........................... 2,42933 Avallable Orphan Asylum fund |  |
|  |  |
| fund |  |
|  |  |
|  |  |
|  |  |
|  |  |

## TEEXAS PENSHONS FOR

CONFMDERATE VETERANS
For many years Texas has been rendering assistince to Confederate veterans. Under the old law the state appropriated the sum of $\$ 500,000$ annually to be divided between worthy soldiers of the Confederate cause. This sum, after taking therefrom $\$ 8$ per month for totally disabled, was divided in quarterly payments between 11,500 to 12,000 old soldiers and soldiers' widows who had qualified under the law, giving to each. according to the last payment under the old law, the sum of $\$ 10.50$ per quarter.
In 1913 the people adopted-an amendment to the State Constitution levying a 5 c tax per $\$ 100$ assessable value for pension purposes. At the time of compiling the statistics for this publication this tax had not been collected, but
it was estimated by the Pension Commissioner that the returns Would exceed $\$ 1,000.000$ per annum, exclusive of expense of collection. Under the old law this would more than double the amount per qualifled soldier, but the pension law was also amended in 1913 raising the date of residence in the State to 1890 and increasing the amount of property allowed a soldier from $\$ 1,000$ to a homestead worth $\$ 1,000$ and $\$ 1,009$ in addition, and these changes, it is belleved, will greatly inerease the pension list and hold down the amount avallable per moldiex.

To Secure a Pempion.
Fech County Judge in the State is furnished blanks for applicants for pensions to fill out and swear to Each Judge is also furnished with a copy of the law and requirementa Soldiers or soldiers widown desiring to make application may secure pension blanks of their County Judge and be instructed relative to requirements.

## Confederate Homen.

In addition to providing pensions for soldiers of the Confederacy the State has also two homes, one for men and one for women, both $10-$ cated at Austin. Here soldiers or soldiers' widows without homes and unable to provide for themselves find a haven. The Legislature appropriates money for the maintenance of these homes at resular or spectal sessions every two years.

## stmmary of texas <br> FISH AND GAME LAWS

The Texas open season on protected game begins Nov. 1. A summary of the game laws, as promulgated by the Game, Fish and oyster Commissioner, is given below. It is a safe guide to all sportsmen and those interested in the enforcement of the game laws. Erroneous impressions have been created by the publication of the game laws of other States in Texas newspapers, but those of Texas are briefly included in the following:
It is unlawful for any person who has not been a bona fide Inhabitant and resident citizen of Texas for six months last past to hunt for or kill any game in this State, without first having procured a hunting license from the Game Warden and paying said Warden the sum of $\$ 15$. Sald license shall be dated when iesued and shall remain in force untí the 31st day of August following thereafter.
Any person may hunt or kill any game during the open geason, when it is lawful to kill game. in the county of his residence. or in the counties adjoining the county of his residence, or on land owned or controlled by him, without procuring a hunter's license from the County Clerk, which license costs $\$ 1.75$.
Caution-You must not use, or attempt to use, the license of another person, or in any manner make any changes in any
license for the purpose of transferring the same, under the penalty of prosecution for forgery.

Section 1. All the wild deer, wild antelope, wild Rocky Kountain sheep, wild turkey, wild ducks, wild geese, wild grouse, wild pralrie chickens (pinnated grouse), wild Mongolian or English pheasants, wild quall or partridges. wild doves, wild pigeons, wild plovers, wild snipe, wild jacksnipe, wild curlews, wild robins, wild Mexican pheasants or Chacalaca, and all other wild animals, wild birds and Fild fowls, within the horders of this State, shall be and the same are hereby declared to be the property of the public.

Game Birds - Turkey, ducks, seese. grouse, prairie chickens, Mongoilan or English pheasants, quail, doves, pigeons, plover, snipe, jacksnipe, curlew, robin and Mexican Chacalaca.

Unlawful at Any Time-To kill, catch, have in possession, dead or alive or to buy, sell or offer to sell, or to ship any other than a game bird, except as apecially permitted. And no part of plumage, skin or body can be sold or had in possession for sale.
To take or needlessly destroy or have in possession nest or eggs of any wild bird, except as specially permitted. Following are exempt: English sparrow, hawks, crows, buzzards, blackbirds, rice birds and owls.

To sell, offer for sale, have in possession for the purpose of sale, or purchase or have in possession after purchase, the flesh. carcass, hide or antlers of deer, antelope, or Rocky Mountain sheep, or any of the game birds mentioned in sec. 1.
To net or trap any wild game or bird or fowl mentioned in Secs. 1 and 2 of the game law.
To destroy wild gees or ducks except with ordinary gun, shot from the shoulder.
To kill, trap or ensnare wild female deer or spotted fawn at any season of the year, or have in possession.

To hunt any game mentioned in Sec. 1 with hunting lamp or lantern.

Unlawful for five years from 1907-To kill, take or destroy any Mongolian or Engligh pheasants, prairle chlcken, antelope or Rocky Mountain sheep.
Unlawful Except Certain Seasons-To kill or deatroy deer except between Nov. 1 and Jan. 1. Quall and doves except between Nov. 1 and Feb. 1.
Number Allowed to $\overline{\text { Kill-Deer, three }}$ bucks in one season; quall, doves, ducks and all game birds, except turkeys. twen-ty-five in one day; turkeys, three in one season, from Dec. 1 to April 1.
You may kill rabbits, squirrels, foxes. opossums, coons and bears in any number, in all seasons.

You may shid or transport to your home such game as you have lawfully killed by making proper affidavit. See form in the game law.

## Fish Laws and Exemptions.

It is unlawful at any time during the year to take, catch or kill, or attempt to take, catch or kill, any fish by means of poison, dynamite or any other explosive in any of the fresh waters, lakes and streams of this State.

It is unlawful at any time of the year to take, catch. ensnare or entrap (except minnows for bait) by means of nets, or in any other manner than with ordinary hook and line or trot line, except in counties exempt by law.

The following exemptions were made in the law as passed in

## 1909. The section has never been amended:

Anderson, Angelina, Archer, Baylor, Bosque, Brazos Brown, Burnet, Brazoria, Bowle, Camp, Caldwell, Chambers, Chero kee, Cass, Clay, Comanche Collin, Delta, DeWitt, Eastland, Fannin, Freestone, Fayette, Galveston, Gollad, Grimes, Ham1lton, Hardin, Hopkins. Hill, Hood, Houston, Hunt, Jack Jefferson, Johnson, Jones, Kaufman, Knox, Lamar, Limestone. Liberty, Llano, Mason, Matagorda, Mitchell. Morrls, Nacogdoches, Newton, Orange, Panola, Polk, Rains, Rockwall, Red River, San Augustine, Sabme, Stephens, Shackelford, San Jacinto, Sheiby, Smith, Throckmorton, Trinity, Tyler, Titus, Upshur, Van Zandt, Webb, Waiker, Wharton, Wood and Young; provided that the counties of Gregg, Hartison and Rusk shall be exempt from the provisiona of this section as to the waters of the Sabine River, but no further, and that Harrison County shall be exempt from the provisions of this section in so far as it applies to the waters of the Big Cypress above Tuscombla bridge and Litie Cypress; provided that in the county of McLennan it shall not be unlawful for any persons or persons to take or catcn fish by means of net or seine rroms any streams in said county from May 15 to Oct 1 of each year, and that it shall not be unlawful for any person or persons to take or catch fish by net or selne in Palo Pinto County from June is to Oct. 1 of each year; provided, that clay County ahall be exempt from the provisions of thls section along the waters of Wichita and Red Rivers; also Jack County along the waters of the Irinity River; provided, that the counties of Austin, Washington and Palo Pinto shall be exempt from the provisions of this section along the watera of the Brazos River; provided, furthar, that in the county of Falls it shall not be unlawful for any persons or persons to take or catch fish by means of net or soline from any stream in said county from June 15 to Bept. 1 of each year.

## FEDBRRAL GAME LAW.

Following is a synopsis of the Federal game law as relates to the zone in which Texas is included:

Of interest to hunters is the new Federal law for the protection of game, which became effective Oct. 1 of this year. According to the regulations which have been published by the Department of Agriculture in accordance with the provisions of the law, the United States is divided into two zones, zone No. 1 being the breeding zone and comprising the States lying wholly or in part north of latitude 40 and the Ohio River, and zone No. 2, the wintering zone, comprising the States lying wholly or in part south of latitude 40 and south of the ohio River. Texas, Oklahoma, New Mexico, California, Nevada, Utah and the Southern States are included in the secona zone.

The closed season in the zone Which includes Texas is prescribed as follows, says Field and Stream:

Waterfowl-The closed season on waterfowl shall be between Jan. 16 and Oct. 1 next following, except as follows:
Exceptions-In Kansas. Oklahoma, New Mexico and Arlzona the closed season Ehall be between Dec. 16 and Sept. 1 , and in Maryland Viryina, North Carolina, Eotth Carolina and Texas the closed nea-
son shall be between Feb, 1 and Nov. 1.
Rails-The closed season on ralls, coot and gallinules shall be between Dec. 1 and Sept. 1 next following, except as follows:
Exceptions-In Tennessee and Louisiana the closed season shall b between Dec. 1 and Oct. 1 , and in Arizona the closed season shall be between Dec. 1 and Oct. 15.
Woodcock-The closed season on woodcock shall be between Jan. 1 and Nov. 1 , except as follows:
Exceptions-In Louisiana the closed season shall be between Jan. 1 and Nov. 15 , and in Georgia the closed season snail be between Jan. 1 and Dec. 1.

Shore Birds - The closed season on black-breasted and golden plover, Jacksnipe or Wilson snipe and greater and lesser yellow legs shall be between Dec. 16 and Sept. 1 next following, except as follows:
Exceptions-In Alabama the closed season shall be between Dec. 16 and Oct. 1. In Arizona the closed season shall be between Dec. 16 and Oct. 15. In Utah, on snipe, the closed season shall be between Dec. 16 and Oct. 1, and on plover and yellow legs shall be until Sept. 1, 1918.

## Of Special Importance.

For details concerning the fish and game laws of Texas write to the Game, Fish and Oyster Commissioner at Austin. Those interested in oyster farming, or the catching and selling of oysters, will do well to secure rules and regulations from the Commissioner's office.

## GAME, FISH AND

OYSTER REPORT, 1913
Interest in the preservation of game in Texas and fish and oysters in Texas waters has greatly increased during the past few years. According to the report of Commissioner Sterett. laws restricting hunters and fishermen are beginning to be appreciated by all citizens who have given the matter attention and there is now a demand for further legislation for the protection of game and fish in order that all species found in this latitude may increase in numbers for the use of this and future generations.

The report of the Commissioner to the Governor contains interesting and valuable data relative to the operations of his department. Coples may be secured by writing to the department at Austin.

## Summary of Report.

During the year ending Aug. 31 , 1913, County Clerks and Game Wardens issued 3,783 county and 182 State hunting licenses, net total of fees thus collected amounting to $\$ 9.644 .65$. During the same pertod 110 fishing permits were issued, 78 fines assessed and sales made of confiscations bring the total amount thus collected to $\$ 10,540.50$.

## Game Fund.

Total receipts during the year ending Aug. 31 , including balance
on hand, $\$ 16,115.85$; disbursements Fith and Oyater Fund.
Balance at the beginning of the Tear, $\$ 29,335.15$; receipts, less disbursements. \$1,003.13; total on hand, $\$ 30,338.28$. Total in game, fish and oyster fund at end of the year, $\$ 38,232.68$.


| F4ng and | OFmter | Cat |  |
| :---: | :---: | :---: | :---: |
|  | Oysters, | Fish. | No. |
| County- | Barrels. | Pounds. | Boats. |
| Aransas | 8.890 | 196.751 | 69 |
| Brazoria |  | 14,651 | 17 |
| Calhoun | 80,183 | 261.498 | 108 |
| Cameron | 658 | 402,606 | 22 |
| Galveston | 81,316 | 244.328 | 161 |
| Harris | 5,554 | 195,682 | 40 |
| Liberty |  | 67,950 |  |
| Matagorda | 27,533 | 257, 636 | 84 |
| Nueces | 97 | 832,502 | 27 |
| Totals | 108,456 | 2,473,604 | 581 |

## SAND AND SHELLL.

The shell reefs and sand along the beach and in the rivers of Texas are the property of Texas and under the control of the Game, Fish and Oyster Commission. The report for the year relative to mud shell and sand is summarized as follows:

| Dimponad of Sand. Cuble Yards. |  | Tax. |
| :---: | :---: | :---: |
|  |  |  |
|  | S..........123,141.88 | 94,8822.3\% |
|  | Reef and Mud Sh |  |
|  | Cubic | Ta |
| Used by | S. Gov. ${ }^{\text {d }} 8.12$ |  |
| Used by | . $3488,8728$. | ,44 |
| Total | 519.23 |  |

## PROPERTSY OF DEPARTMENTP.

State patrol boat Colquitt, at Port Lavaca
$\$ 3,50000$
Skiff, with equipment, for boai Colquitt

19575
Patrol boat scout, located at Port Lavaca
Skiff and other equipment for

Skiff Palaclos ond ou.................. for boat Sprig
Otate patrol boat Ranger, lo-
cated at Port Lavaca.
35000
2125
76000

Skiff and other equipment for boat Ranger … Rèiance...... State patrol boat Re
$\$ 14025$
Skiff and other equipment for bost Reliance ..................
State patrol boat Ann Kaurman, located at Matagorda.
Skitf, with equipment for Ann Kaufman, at Matagorda......
State patrol boat with equipment, at Caddo Lake........
Two acres of land, house and improvements at Caddo Lake
Furniture, cooking utensils and equipment at Caddo Lake....
Bateau, or small rowboat, at Caddo Lake, complete.
Improvements made to the Sitate lodge during the year. ........
Firteen cords of wood at Caddo Lake wring wason and harness at Spring wagon and harness at Caddo Lake cad..........
Saddle, bridle and blanket ait Caddo Lake ...................... Furniture in office at Austin...
Furniture in office at Galveston Skiff for Reliance, at Galveston
One Ford automobile for departmental service

12725
76000
18700
30000
1,40000
22050
3750
15000
3000
7000
12500

70000
200 U0
800
State patrol boat "Hèlen Cö. with equipment

65000

Total value of department's property

## TEXAS PRISON POPULATION.

On Sept. 1, 1913, Texas had a prison population of 4,053 , classified as follows:
Whites . ................................... . . 1.292
Blacks
1,292


Total .....................................4,063
The State prisoners at the date
referred to were distributed as follows:
Huntsville prison $\because$...................... 577
Huntsville, Camp Goree (female)... 89
Rusk prison ............................. 210
Harlem farm, Richmond............... 411
Imperial farm, Sartartia............. 649
Clemens farm, prazoria.............. 687
Ramsey farm, otey.................... 624
Wynne farm, Huntsvilie............... 165
House farm, House.................... 247
Blakely farm, Fulshear............. . 202
Trammell farm Angleton............ 139
Shaw farm, Dekalb.................... 130
Asylums ...................................... 13
Total . ................................ 4.053
Prison Property.
Following is a statement of property owned by the Texas State prison system:
Land. acres ....................... 81,896

Real estate valus, including

Live stock .o..........................
supplies
244,41257
Texas State Railoá
821.57688

Total
\$5,152,368 18

## TEXAS LAND MEASURE.

The vara as the unit of land measurement came into our laws from the Spanish and Mexican laws through a general provision of the Constitution of the Republic,
adopted March 17, 1836. This provision is as follows:
"That no inconvenience may arise from the adoption of this Constitution, that all laws now in force in Texas, and not inconsistent with this Constitution, shall remain in full force unill declared vold. repealed, altared, or expire by their own limitation.'

Measurements under the laws of Spain were made in varas and after the independence of Mexion was established the colonization law of March 24, 1825, of the State of Coahuila and Texas adopted the vara, conslsting of $331-3$ inches as the unit of measuring land. This law was in rorce when the Constitution of 1836 was adopted and, not being inconsistent with that instrument and not having keen repealed, is now the law. Art. 4144 R. S., requires the observance of the Spanish measurement by varas in writing lield nntes.

1 Land Sleamure Tamle. 2,778 vara $=33$ 1-3 inches. 2,778 . 100 feet. varas $=100$ vards.
1.900 .8
1.900.8
sq. varas= 1 acre.
$\mathbf{3 , 6 1 3 , 0 4 0 ~ s q . ~ v a r a s = 6 4 0 ~ a c r e s , ~} 1$ вquare mile.
$1,000,000$ sq. varas=177 1abor. acres, 1
$0,259,000$ sq. varas $=1,107.1$ acres, one-
fourth league.
8.233.333 sq. varas $=1,476.13$ acres. on third league.
12,500,000 m. varas=2,214.2 acres. one-
$25,000,000$ sq. varas $=4.498 .3$ league. one $28,000,000$ sq. varas=4.655 acres. one

To ascertain the number of feet in a given number of varas. multiply by 2,778.
To ascertain the number of varas in a given number of feet divide by 2.778 .
To reduce square varas to acres. divide by 5.645 or multiply by 17.71 and cut off eight figures.

## TEXAS NEWSPAPERS.

There were 985 publications of various classes issued in Texas at regular intervals during the year 1912. according to a census taken by the Texas Commercial Secretaries and Business Men's Association on the newspaper industry in the State for the year. The total circulation of all papers published in Texas gives an average of one paper per capita per issue, and, adding to this the periodicals that are published outside the State which circulate in Texas, gives an average of five papers per family. The combined circulation of both the papers printed in English and forefgn languages in the state is approximately 4.123 .000 per issue.

## WEIGHTS AND MEASURES.

The following are legal weights and measures established by act of the Twenty-Seventh Legislature of the State of Texas. The figures
given mean pounds to the bushel:
Apples
Apples. dried................................... \& $^{\text {s }}$
Barley wio:.................................: 2
Beans. white.......................................
Bran
Buckwheat
Charcoal
Clover seed
Corn. shelled. in ea.......
Corn. in ear, unshucked
Cotton seed
Flax seed.
Hemp seed
.................................
號 see grass seed.
Oats
Onlons
Peaches
peaches, dried......................................
Potatoes, Irish................................
Potatoes, sweet.
Rye
Salt

. . . . . . . . . ................................ 50

Tomathy
Turnips 60

Wheat5

## TEXAS FACTE THAT

## WILL INTEREST YOU

Area, 265,700 square miles.
Land area, 262,398 square miles. Number of counties, 252, of which five remain unorganized. Coast line, 375 miles , not including indentures.

Porulation, 1910, 3,896,542.
Estimated population, 1813, 4,208,465.

Density of population, 1910, 14.8 per square mile.

Dallas County, with a population of 135,748 persons, is the most populated county in the State.

Cochran, with 65 persons, 1910 . has the smallest pepulation of any county in the state.

The six nighest points east of the Rocky Mountains are in Texas.

Guadalupe Peak, in Culberson County, is the lilghest mountain in Texas. Its altitude is 9,500 feet.

Texas has 132 incorporated cities, villages and towns.

The total forelgn commerce of the port of Galveston exceeds the combined total of foreign commerce of all Pacific ports.

The port of Galveston is second only to the port of New York in value of its foreign commerce.

Texas has a greater ralliroad mileage than any State in tne Union, but, because of the great area of the State, should have four times as much to give it the mileage per square mile enjoyed by Illinois.
In 1913 Texas cultivated approximately $30,000.000$ acres of land, which approximates about onefourth of the tillable land of the State.

Texas leads the States of the Union in the total value of agricultural products.

Texas' staple crops for 1512 were valued at $\$ 407,160,000$, Ilinois fol
lowing with \$289,326,000. Total value of all Texas crops for 1912 was $\$ 563,250,000$.
The Texas cotton crop for 1912 was $4,880,210$ bales ( 500 pounds).
The 1913 Texas cotton acreage was estimated by the Government to be $11,732,000$ acres.
Texas has 4,300 active ginneries and 220 active cotton oil mills.
Texas cotton oll mills crushed $1,570,966$ tons of cotton seed in 1912.

Farm property in Texas last census was valued at $\$ 1.843 .208,395$.

Machinery and implements on Texas farms are valued at a total of approximately $\$ 65,000$.c00.

There are approximately $\$ 400$,000,000 worth of live stock on Texas farms.

Land values in Texas increased an average of 214 per cent in ten years.
Bulidings on Texas farms increased an averace of 109 per cent in value during the decade, 1900. 1910.

Tenants operate 52.6 per cent of all the farms in Texas.
Nearly 50,000 men. boys and girls are operating demonstration fields in Texas.
Texas harvested $13,000,000$ bushels of wheat in 1913 .
Texas harvested $7.300,000$ acres of corn, averaging 21 bushels per acre (1912, latest officlal report.)
The milo maize and Kaffir corn crop approximated $13,500,000$ bushels in 1913.
Texas holds second place among States in rice production. the yield approximating 9.000 .000 bushels annually. The 1913 crop was damaged by floods.
Texas produces approximately 32,000.000 bushels of oats per annum.

There are 2.073 .000 sheep in Texas, valued at $\$ 2.90$ per head.

The assessment rolls of Texas show 866.136 goats on Texas farms and ranches.

Nearly $\$ 30,000,000$ worth of food animals are slaughtered annually in Texas.

There were 4,588 manufacturing establishments in Texas in 1909 and approximately 6.948 in 1913.

More than $\$ 350,000.000$ are invested in manufacturing in Tevas.

Approximately 100.000 persons are employed in Texas factories.

Texas has $25.000 .000,000$ feet of standing pine timber and 10.000 .000.000 feet of standing hardwood.

There are 427 active sawmills in Texas. With a capltal investment of $\$ 25.000,000$, exclusive of timber holdings.

There are sixteen cotton mills in Texas, having a total of 129,400 spindles and $\mathbf{5 . 6 7 0}$ looms.

There are seventy-one active flour mills, with a total capital of $\$ 13,764,000$. There are also 412
gristmills, with a total capital of \$449,944.

The Texas creamery industry is thriving. In 1900 there were iive commercial creameries. In 1913 there were 102.

There are 547,571 acres under irrigation In Texas, with $1,038,880$ acres within reach of the present irrigation systems.

There are $10,000,000$ acres of rich lands subject to reclamation by the construction of protective dykes or by proper drainage. One miliion three hundred and sixty-four thousand four hundred and forty-nine acres in the coast country has been drained during the last few years.

There were fourteen interurban railroads, with a total mileage of $5081 / 2$. operating in Texas in 1913.
Thirty-six cities in Texas have street rallways.

Texas has 140.000 miles of public highway and 9.768 miles of paved or surfaced roads.
Bond issues in Texas for road bullding total $\$ 15,682,000$ for four years.

Texas has an assessed valuation exceeding $\$ 2.600,000,000$.

Texas vital statistics for the year ending Sept. 1. 1913, show the death of ninety-six more negroes during that period than were born, also the birth of 26,150 more Whites than died during the same time.
The total investment in manufacturing enterprises in Texas in 1910 was $\$ 216,867,000$ an increase of 87.5 per cent. Based on the same rate of increase, the amount invested in 1813 was $\$ 368,689,000$.

There were 220 cotton seed oli mills in Texas in 1913.

## QUESTION OF RAILROAD TIES.

John Foley, forester of the Pennsylvania Railroad. says that his company cuts down a forest of 60,000 acres every year for crossties alone.

The steam and electric rallroads of the country annually need the trees on $2,000,000$ acres for the same purpose.
Then about $4,000.000$ poles are required by the telegraph, telephone and elertric light companies. and each pole is a tree in itself.
In the meantime unsuccessiul efforts are being made to find a substitute for wood.
Steel ties are hard on locomotives and cars, and those made of cement often break and lack in resillency.
One great rallroad is trying to grow timber for its own use and is planting millions of red oaks every season.

James $J_{i}$ Hill and other experts think the United States is becoming a treeless country.

## GENERAL AND TOPOGRAPHICAL DESCRIPTION OF COUNTIES

Following is a general and topographical description of Texas connties. The space allowed this section does not permit the repetition of statistics found in other sections of this publication. For details rela. tive to the progress made in individual counties in agriculture, live stock, horticulture and development of natural resources, readers are directed to other sections of this book. . The statistics found therein will be valuable for study in connection with the brlef account of each county in this section.

CREATION OF NEW COUNTIES.
Texas has an area of 265,896 square miles. There are 253 counties, all of which are organized except six. The unorganized counties are Bailey, Cochran, Crane, Hockley, Loving and Dunn.

The Thirty-First Legislature in regular session created three new counties, viz.: Jim Hogg. out of portions of Brooks and Duval Countiea: Kleberg out of Nueces County, and Real out of portions of Edwards, Bandera and Kerr Coun-? ties. In special session of the same Legislature the county of Dunn was created from a portion of Duval County. This county will be organized early in 1914.

Jim Hogg County has an area of 1,099 square miles. Of this alea, 1,052 square miles were taken from Brooks County and forty-seven from Duval County. Hebbronville is the county seat.

Real County has an area of 700 square miles, of which area 471 were taken from Fdwards County. 184 from Bandera and forty-five from Kerr. Leakey is the county seat.
Kleberg has an area of 1,012 square miles, all of which was taken from Nueces County. Kingsville is the county seat.

Dunn County has an area of 888 square miles, all of which was taken from Duval County, At the time of completing this section of the Almanac Dunn County had nct been organized.
The general description of the newly created and organized counties has been included in the story of the counties from which they were created. Conditions are practically the same.

## ANDERSON COUNTY.

Anderson County is situated in Elast Texas, southeast from Dallas. It lies between the Trinity and the Neches Rivers. It was created from Houston County in 1846 and organized the same year, being named for Kenneth L. Anderson, a former Vice President of the Republic of Texas. Its area is 1,060 square miles and its population in 1910 was 29,650 as compared with 28,015 in 1900. Since the census of 1910
it has received many settlers and its cities as well as its rural sections have made gratifying prug. ress. Palestine, the county seat, had a population of 10,482 the last Federal census. Elkhart Frankston, Neches, Sait City and Herring are other towns. Three railroads International and Great North. ern, the Texas and New Orleans and the Texas State Railroad connect its towns with outside markets. Another line is under consideration to connect Palestine and Dallas.

A broad ridgelike elevation 1 unning from north to south forms the drainage divide between the Trinity and Neches Rivers. From this divide spring many small streams, which furnish excellent and an abundant supply of water for stock and other purposes. Many of these streams are weli stocked with fish, particularly in portions where dams have been erected and small lakes formed. Lying in the timber belt, the lumber industry continues to be of im. portance, although it is now secondary to agricultural and horticultural pursuits. There are, howover, many timbered sections, and in all parts of the county there is a great variety of timber for domestic use and for manufacturing.
Anderson County has a hilly. rolling surface with many brozd valleys. The soil is largely sandy and light loams, well suited for the production of all staples common to its latituie. Under prodar cultivation exceptionally large ylelds of cotton, corn, ribbon care and small grains have been produced, first prize having been taken on several occasions in the boys' corn club contests. In the vicinity of Palestine there is a large area of Orangeburg soil adapted to the growth of clgar leaf tobacco and considerable success has been attained in experimental work along this line. With an average rainfall exceeding 40 inches, a mild climate and long seasons, the county presents splendid opportunities for the practice of diversified farming, including fruit and truck growing. During the last few years these industries have made splendid progrese, the
most encouraging feature being found in increased yields per acre as well as an increased acreage. As a great variety of feedstucfs is produced, stock farming is becuming especially attractive and but few farms are found that are without a goodly number of cattle, hogs, mules and horses. Many farmers are becoming interested in dairying and a large creamery is prospering in Palestine. Others find it more profitable to grow feed for fattening beef cattle and hogs, selling the finished product and retaining the rough fertilizer for their lands. The growing of peanuts is encouraging live stock parming to a large degree and also furnishes a money crop which has been found equally as profitable, and in many instances more so than cotton.
The organization of associations and selling agencies is encouraging fruit and truck growing, for which the soil and climate is most excellently adapted. Peaches, plums, summer apples, grapes and all kinds of small fruit produce abundantly and of superior quality. Every form of truck for canning and for the early market is grown, and to provide for the surplus production and to encourage the industry a large canning factory has been constructed at Palestine.

Realizing the value of good roads, the people are becoming interested. The sum of $\$ 150,000$ has been expended near the county seat and other precincts are considering bond issues. The county and its various precincts are keeping the highways in a passable condition at all seasons of the year.

Large deposits of iron ore, lignjte, salt, fire and brick clay besides limestone and other building stone are among its other natural resources. The salt and clay deposits are receiving attention from manufacturers. Although many surveys have been made and values placed on lands in which iron is found in paying quantities, thus far the deposits have not been developed. Increasing interest in Texas iron ores, however, will bring the Anderson County fields into prominence. Lignite of good quality is plentiful and will play an important part in the industrial development of East Texas.

Anderson County lands are variously quoted from $\$ 7$ to $\$ 20$ per acre for unimproved and $\$ 20$ to $\$ 35$ for improved. some well located farms at higher prices. Homeseekers are invited.

## ANDREWS COUN'TY.

A West Texas county with an area of 1.591 square miles. It is situated at the foot of the Staked Plains and borders New Mexico on the west. It was created in 1876
from Bexar County, named for Richard Anderson and organized in 1910. with the county seat at Andrews. Its population was 975 in 1910 and 87 in 1900.

Absence of railroads has delayed progress in the development of Andrews County agricultural resources. A railroad, however, has been surveyed through the county and its citizens are looking forward to its construction. At the present time the nearest railroad stations are Midland, Midland County, and Lamesa, Dawson County. To these points cattle are driven for shipment and such products of the farm as are without local market are transported by team. Ranching has been and is the principal occupation of the people. With a surface of rolling prairies, broken here and there by draws and canyons; a rich soil productive of a luxuriant growth of nutricious grasses, the country is well adapted to the live stock industry, and because of the lack of railroads ranchmen have had less fear of the shrinking of their pastures because of increased farming operations.

While the old ranch life may continue in this section for a number of years, the vanguard of farmers has already crossed the border and scientific farming is becoming prominent. There is an abundance of water underground. although there are no running streams. In some sections an inexhaustible supply is found a.t depths under thirty and forty feet, which means development of irrigation in the near future. In other sections one must go deeper, but so far as has been demonstrated an excellent supply of pure water for all purnoses exists at a depth conveniently near the surface to be secured by windmill or ordinary pump. The rainfall varies, but approximates eighteen to twenty inches annually, and by the practice of modern dry farming methods large yields of Kaffir corn, majze, sorghum, millet. other feedstuffs and other staples are secured. Apples, cherries, plums and other fruits are also successfully grown and with proper attention the fruit industry could be made Andrews needs is railroads to prominent. Those who have investigated conditions claim that all bring it into the ranks of counties producing all leading varieties of agricultural and horticultural staples. While nothing of a definite nature has been given out. it is believed that at least one railroad will be constructed through this territory in the near future. Even without railroads, the population is making a rapid increase. Lands are variously quoted at $\$ 5$ to $\$ 25$ per acre, according to location and the depth of water.

## ANGELINA COUNTY.

Angelina County lies in Southeast Texas. It was created and organized in 1846 and named for the river which forms its eastern boundary. The Neches River forms its western boundary and these streams and tributaries not only supply an abundance of water, but give excellent drainage to adjacent lands. Its area is 880 square miles and its population in 1910 was 17,705 a scompared with 13,481 in 1900. Lufkin, its capital and chief city, had a population of 2,749 the last census. Huntington, Burke, Zavalla, Diboll and Pollak are also important market towns. Excellent rail transportation is furnished by the Houston East and West Texas. St. Louis Southwestern, Groveton, Lufkin and Northern, Eastern Texas. Texas and New Orleans, Texas Southeastern, Angelina and Neches Rivers and Shreveport, Houston and Gulf Railroads.

Angelina County lies in the East Texas timber belt and lumbering is the basis of its important manufacturing industries. While its surface is generally rolling, there is much level land, consisting largely of light sandy, gray sandy and sandy loams, with much rich alluvial soils in the bottoms. With a mild climate, an abundance of excellent underground water at a shallow depth (artesian at 500 to 1,000 feet), an annual rainfall exceeding forty inches and a variety of productive soils, the agricultural and horticultural interests are increasing in prominence. Lands. ridiculously low in price, considerine conditions of soil and odportunities, are attracting settlers, and farmers are beginning to follow the lumbermen, converting cut-over lands into productive fields and orchards. With a better understanding of the value of improved highways and an increasing number of citizens becoming interested, the occuration of the now large area of available lands will take but a comparatively few years to accomplish.

Cotton and corn are among the leading staple products. Ribbon cane. sweet potatoes, peanuts. Trish potatoes, all kinds of vegetables and many varieties of fruits are also prominent amons the products of field and orchard. The introduction of peanuts, cow peas and other feed crops is encouraging live stock farming. which includes dairying. Excellent rail connections and near-by markets are provine advantageous to truck and fruit growers and these industries are growing in favor. Both soil and climate are adanted to diversified farmine as well as soecialization in singTe crops. Soils respond quickly to fertilization and intelligent cultivation, and with the
passing of the lumber industry Angelina will find itself already in the ranks of producing counties of the State.

Among the natural resources is an abundance of brick clay, which is undeveloped; also oil, indicationa of which are found near Lufkin.

## ARANSAS COUNTY.

A Gulf coast county lying midway between Galveston and Brownsville. It was created and organized in 1871 with an area of 295 square miles. It was formerly a part of Refugio County. It was named for Aransas Pass. In 1900 it had a population of 1,716 , which had increased to 2,106 in 1910 . Rockport is the county seat and chief city, with a population of 1,382. Aransas City, a new town situated on the main land opposite Harbor Island, is already prominent as one of the new deep water ports on the Texas coast. By the construction of jettles and dredging the Federal Government nas made possible the navigation of ocean vessels through Aransas Pass to the Government constructed basin at Harbor Island and private interests have constructed rail lines to the island, making their terminals at Aransas. Rockport, also situated on the bay, has a light draft channel and will undoubtedly eventually enjoy the benefits of deep water. The San Antonio and Aransas Pass Railroad terminates at Rockport. Other lines are contemplated.

Aransas County is generally level, with some timber along the river bottoms. It is drained by the Aransas River and Chillitin, Cotano and Media Creeks. There is considerable level. flat land which could be profitably drained by ditches. The rainfall averages thirty-six inches per annum. Water is abundant at a deoth of twentyfive to thirty-five feet.

Like all coast counties of Texas. the climate is mild in summer and winter. With these climatic conditions and a productive soil. when arained, obportunities for general farming, truck and frult growing are attractive. Of late years agricultural and horticultural interests have made rapid growth, taking precedence over the live stock industry in its old-time form. Dairying and live stock farming, however, are two branches of farming which is improving grades of animals and adding to the numbers in the county.

While conditions particularly favor fruit and truck growing, early corn. cotton and feedstuffs are beine planted in increasing acreage. This is more true in the northern section than nearer the coast, where truck and frut is beginning to be grown extenslvely. Figs have proved profitable and the orchard
acreage is rapidly increasing. some success has also attended efsorts to produce citrus iruits. Strawberries and other small fruits straw luxuriously and find ready sale. Early truck is shipped to Northern markets. There is also a growing interest in poultry.
© The new deep water port at Aransas and the construction of good roads have attracted considerable attention to this part of the State and the population of towns and rural districts is increasing rapidly. New settlers are invited. Lands range in price from $\$ 25$ to $\$ 80$ per acre for best m proved. Unimproved lands may be had from \$20 up.
Among the important industries of the people is the catching and marketing of fish and oysters. Oysters are plentiful on natural reefs, but oyster farming is now becoming practical. Many citizens give their entire time to fishing as an occupation. The bays afford the sportsman magnificent hunting and fishing.
The San Antonio and Aransas Pass Railroad enters the county. Several other trunk lines have made surveys and will undoubtedly take advantage of the new port and the facllities offered for handiling export and import cargoes from various countries of the world.

## ARCHER COUNTY.

Archer County is situated northwest of Fort Worth one county removed from the Red River. It was created from Clay County in 1858 and organized in 1880 ond named for B. T. Archer. It has an area of 960 square miles and in 1910 had a population of 6,525 as compared with 2.508 ten years pievious. Archer City, the county seat, had a population of $825^{\circ}$ the last Federal census. Megargle. Dundee. Holliday Scotland and Windthorst are other towns, It is served by the following rallroads: Southwestern, Wichita Valloy, Wichita Falls and Southern and Gulf, Texas and Western.

Archer is being transformed from a strictly live stock zounty of the old style to one in which diversified farming is becomins a prominent industry. Its surface is mostly level and covered with a stunted growth of mesquite, wilh some post oak in the breaks. Along the Little Wichita River it is more or less hilly, but the greater portion of its area is level and adapted to farming. Cotton, corn and wheat are leading staples and sroduce abundantly. Ail kinds of feedstufis, including alfalfa and peanuts, are generally grown in increasing acreage each year and the ease with which these crops are produced is encouraging the
feeding of live stock on the farm and the breeding of blooded and graded animals. An abundance of underground water at 4 depth of 25 to 125 feet and an average rainfall of twenty-eight inches per annum are among the natural advantages which are favorably considered by homeseekers. A variety of soils, including light sandy, red mesquite, dark loam and black waxy, all productive when rightiy handled, make the county particularly adapted to the development along agricultural and horticultural lines.

Fruits, including apples, grapes, peaches, plums and berries, are easily grown. Vegetables of almost every variety are found in gardens, although the industry has never been expanded to a commercial size.

Copper nuggets and copperized clay have attracted considerable attention from persons interested in minerals. Deposits of fine clay suitable for brick are numerous. but remain unworked.

A large area of Archer County is yet undeveloped. Homeseekers will find many attractive opportunities to encrage in live stock farming, diversified farming, truck and fruit growing. Prices of land vary, according to location and distance from railroad stations. Good lands may be secured as low as $\$ 12$ to $\$ 15$ per acre. Improved lands are valued somewhat higher.

## ARMSTRONG COUNTY.

Armstrong County is situated in the Panhandle, east of Amarillo. It was created from Bexar County in 1876, organized in 1890 and named for one of the pioneer fumilies. Its area is 870 square miles and its population 2.682, ace.ording to the census of 1910 . Claud, the county seat, had a popilation of 692 the last census. Goodnight and Washburn are other towns.

With the exception of the oroken lands in the vicinity of the Palo Duro and Mulberry canyons, the surface is level plain. The Palo Duro canyon crosses the south west corner of the county and the Mulberry canyon takes a diagonal course a little north of center. The former is a gorge of wild scenic beauty, re-^hing to a depth of 1.000 feet in places and is prominently mentioned in Congressional petitions as worthy of being set aside as a National park. Several varieties of timber, including a large amount of cedar, are found in the canyons, timber growing no other places. The Salt Fork and Prairie Dog Fork of the Red River and Mulberry Creek are live streams and furnish a splendid supply of water for stock in the vicinity of the canyons at points where these gorges are accessible. At depths varying from 140 to 180
feet is found an abundance of pure water in all sections.

Armstrong County contains many large cattle ranches. Its live stock interests are large and important. Of late years stockmen have deYoted a great deal of attention to the improvement of breeds and as a result the ranches are stocked with splendid specimens of Hereforas, Polled Angus and other breeds of beef animals. Live stock farming is taking the place of ranching in many sections, particularly in the northern and eastern portion in the vicinity of the Fort Worth and Denver Railroad, the only railroad in the county. With an average of 22 to 84 inches of rain it has been found profitable to grow all varieties of feedstuffs, such as Kaffir corn, maize, sorghum, alfalfa, corn and millet, and the practice of selling crops on the hoof is becoming general. Wheat is also a staple crop, producing from fifteen to thirty bushels per acre, according to the season and methods of cultivation. Flax and broom corn are being grown in increased acreage. Other crops are being introduced as new settlers arrive and open up farms. As in other Panhandle counties, apples, grapes, peaches, pears, plums and small fruits, as well as many varieties of vegetables, are produced for home consumption with such success as to encourage their growth on a commercial scale. Cotton is also grown to some extent.

At Goodnight is found one of the few herds of buffalo in the United States. Col. Goodnight, owner of the Goodnight ranch, has succeedel in domesticating the kuffalo and cares for a large number on his place. The fame which has come to this part of the county, however, results from the success of Col. Goodnight in crossing the buffalo with Polled Angus cattle, producing a combination animal which partakes in a measure of the nature of both buffalo and Polled Angus. He has named the new animal "catalo." It is said to be a splendid beef animal, capable of withstanding a severe climate and of existing on short forage if necessary.

The production of the "catalo" has attracted a large amount of attention to Armstrong County and made it prominent as a live stock district.

Large tracts of land are open for settlement. Homeseekers will find many opportunities to secure good farms on reasonable terms. Lands are variously quoted from $\$ 15$ to $\$ 25$ per acre. Soils are of a sandy loam variety.

## ATASCOSA COUNTY.

Digitized for Atascosa County has an area of 1,182 Equare miles and a popula-
tion of 10,004 (Federal census of 1910). It is situated in Southwent Texas south of Bexar County. It was created and organized from Bexar County in 1858. Jourdanton is the county seat. Pleasanton, Imonge, Christine, Campbellton and Lytle are other towns. The Artesian Belt Railroad bisects the county in a north and south direc. tion; the International and Great Northern Railroad crosses the northwest corner; the San Antonio Uvalde and Gulf Railroad crosses in a southwesterly direction, with a proposed division southeast to the Gulf.

With a mild climate at all seasons of the year, conditions are favorable to the development of agricultural and horticultural industries along scientific lines. An average rainfall of 26 inches per annum is sufficient, in ordinary seasons, for the production of most staple crops under proper preparation and cultivation. The sandy loam soil, which prevails in the eastern and southeastern part and in the Atascosa Valley, is specially adapted to the production of fruits and vegetables, and when properly handled retains moisture throughout rainless weeks. There are also large areas of black soils and other soil compositions which give to the inhabitants unexcelled opportunities for diversification.

The Atascosa Creek is the only stream of importance, but notWithstanding the absence of flow. Ing surface water, the drainage is excellent, while there is not a scarcity of water for stock and domestic use in any section. Shallow well water is abundant and artesian water in sufficient quantities for irrigation purposes is reached at a depth of 300 to 600 feet. About 3,000 acres are irrigated.

The live stock interests predominate, but in place of large pastures there is a tendency to devote special attention to live stock farming. With San Antonio as a convenient market, truck and fruit growing is profitable and the acreage devoted to this form of farming is increasing. General farming is a pronounced success and land values in the more developed sections are advancing.

Among the important industries is that of bee keeping. The Southwest is favored by an abundant growth of wild flowers and the bee and honey industry attained prominence years ago and has maintained its position since then. It is estimated that there are more than 3.000 swarms of bees on farms and that the honey production is annually valued at \$15,000 to $\$ 20,000$.

Homeseekers will find much to commend in this county. Lands are variously quoted from 810 to
s33 per acre, some higher, according to location and improvements.

## AUSTIN COUNTY.

Austin County, situated a little northwest of Houston and two counties removed from the Guif, is one of the original counties of the State. It was created in 1836 and organized the following year, receiving its name from Stephen F . Austin, one of the patriots of the Republic of Texas. It has an area of 712 square miles and in 1910 had a population of 17,699 . It is served by the Gulf, Colorado and Santa Fe, Missouri, Kansas and Texas, San Antonio and Arangas Pass and Cane Belt Railroads. Bellville is the county seat. Sealy, New Ulm, Wallace Station, Industry, Cat Springs and Kinney are other market points and towns.
Austin County is securing proninence for its agricultural and horticultural industries because its citizens are taking advantage of its many natural resources. Its central and western portions are rolling and the southern portion almost entirely level. It is watered by the Guadalupe, Colorado, San Bernard and Brazos Rivers, the latter forming the eastern boundary line. Along the streams the soil is of a dark, reddish brown, very fertile. Light and dark sandy loam, black loams and waxy soils are found on the uplands. The western portion is included in the black land belt of South Texas. A wide belt of post oak timber crosses the northern end, while various kinds of timber grow to large size in the bottoms. With the exception of various clays. some of which is suitable for brick and tile work, there are no minerals.

Although Stephen F. Austin brought a colony of 300 white people and founded the town of San Felide as early as 1821, the resources of the county remained undeveloped for many years. Previous to the Civil War there were many rich olantations, but in after years much of the county was given over to stock ranches. As compared with its early settlement. the great wealth lying in its fertile soils was not recognized until recent years. Since farming became a regular occupation the county has made rapid progress in all lines. The live stock industry continues to be associated with farming and thousands of head of beef animals, hogs, mules and horses are marketed annualiv. Conditions are also most favorable to dairving and dairy products are shipped to various markets of the State. Cotton and corn are leading field staples. Truck farming and fruit erowine are attracting increasing attention perry vear. All mall fruits are grown with profit.

Figs do well and are grown for home consumption as well as for the trade. Pecans of natural growth are found in the timbered section and a great many farmers are beginning to top work and bud their wild trees of both pecan and hickory with the paper shell varieties. Modern methods are being rapidly introduced in the growing and handing of all farm and orchard products and better returns and improved lands are resulting.

The citizens of Austin County recognize the value of improved highways, and while each precinct is devoting the regular tax to grading and building roads, several precincts have issued bonds and have constructed surfaced roads of the best kind. The good roads movement is spreading to all parts of the county.

San Felipe, the original seat of government of the territory now known as Texas, is the only municipality of the State conducted without taxation. Five leagues of land were ceded to this municipality and later a portion sold to the Gulf, Colorado and Santa Fe Railroad, the proceeds being invested. the revenue from which is more than sufficient to support the city government and the public schools.

While the county is making rapid progress in the development of its resources, there is much uncultivated land and opportunities for homeseekers are many. Land prices range from $\$ 10$ to $\$ 75$ per acre, according to location and improvement.

BAILEY COUNTYY.
Situated in the Plains cruntry of Texas, bordering New Mevicn. This county was created from Bexar County in 1876 and is unorganized. Its population in 1910 wis 312. Its area is 1,000 square miles.

The Gulf, Colorado and Santa Fe Raflroad in constructing its line from Coleman to Texico in 1913 crossed the county in a northwesterly direction through the northern section. The construction of this line and the development of the shallow water belt for irrigation purposes has greatly increased the population.

The surface is almost level plain with wide. shallow valleys. In some localities are found narrow strips of sand hills. but level land and dark sandy loam soll predominates. Although the rainfall approximates 18 inches and less $p \in r$ annum, scientific cultivation permits the nrofitable growth of maize, Kaffir corn, sorghum and other feedstuffs. In the shallow water belts all staples produce large yields, white fruits and vegetables grow luxuriantly. The possibilities of irrigation are many and development in the shallow

Water belt in the northern section is making rapid progress.

Until a year ago Bailey County was practically one large pasture. Although the live stock interests predominate, stock farming and diversified agriculture and horticulture in the irrigated sections are claiming an increasing amount of attention, these features being entirely responsible for the increase in population and wealth recorded during the last two years. While an accurate survey of the shallow water district has never been made, it is estimated that there are approximately 45,000 acres in the northern portion of the county with an abundant supply of pure water at a depth ranging from eight to fifty feet. A shallow water belt is said to exist in the southern portion of the county also, but being without transportation facilities it has not been developed.

Like other Plains counties, a large area is available for new gettlers. Lands in irrigated sections are advancing rapidly in price, but in sections not yet proven may be obtained at $\$ 10$ to $\$ 15$ per acre.

## BANDERA COUNTY.

Situated in Southwest Texas; created in 1856 from Bexar and Uvalde Counties and organized the same year; named for Bandera Pass; area 822 square miles; population 4,921 in 1910, as compared with 5,332 in 1900. Bandera, the county seat, is an unincorporated town. Medina is another town in the county. There are no railroads.

The western portion is crossed by ranges of mountains covered with forests of cedar and a dense undergrowth. In these mountains rise the headwaters of the Medina, Sabinal, Frio and Hondo Rivirs. The current of these streanis is swift and present many favoriole conditions for utilizng weter power and for irrigation by means of gravity ditches. The underground supply of water is founs it an average depth of 220 feet. The rainfall will approximate 20 to 24 inches per annum. Only a small acreage is under irrigation. Opportunities for irrigation are numerous and several plans have been advanced for utilizing the water of the streams for that purpose.

The upland soils consist of hog wallow and loam, the river valleys are made up of a rich sandy loam. All are very fertile and productive when proper moisture is receivef. Live stock raising is the leading industry. The agricultural interests are small, but present many indications of development. Cotton is a leading crop. Oats, corn, Wheat, sugar cane and hay all do well. Pears, peaches, dewberries and apples are proven fruits, but
only sufficient amounts are raised for home use. A great many farmers and ranchers have a few stand of bees and interest in apiculture is developing. The poultry indure try also produces considerable rev. enue.

A large acreage is available for new settiers. Lands susceptible of irrigation are quoted from $\$ 30$ to $\$ 50$ per a.cre; raw lands from $\$ 5$ to $\$ 15$ per acre.

## BASTROP COUNTY.

Situated in South Texas, south east of the geographical center of the State; created in 1837 and organdzed the same year; named for Baron de Bastrop; area 881 square miles; population 25,344 in 1910 . Bastrop, the county seat, had a population of 1,707 the last Federal census. Smithville is an important railroad town and the chief city with a population of 3,167. Elgin, McDade, Paige, Red Rock Upton and Rosanky are flourishing villages and market centers. The Missouri, Kansas and Texas and the Houston and Texas Central Railroads connect these towns with other points in the State.

Conditions of soil, rainfall, climate and drainage in this county favor diversified agriculture and horticulture. The surface is generally rolling. There are many level tracts, rich alluvial valleys, sandy loam lands, lands composed of black clays, some rough country, but all adapted to some feature of farming and live stock raising. The Colorado River bisects the county in a southeast and north direction. Numerous creeks, tributaries of the Colorado, complete a natural drainage system and provide an abundance of water for all purposes. In the rough country and along the river bottoms is found a plentiful supply of various kinds of timber. Underground water is secured at a moderately shallow depth, while the rainfall. of approximately 36 inches per annum makes possible the storage of the run-off of streams in sufficient. quantity for the irrigation of a large acreage. A few small plants are operated along the Colorado River, but irrigation is not generally considered necessary for the production of all staples common to this latitude and of fruits and vegetables of many kinds.

Of late years farmers have had a tendency to combine live stock raising with general farm operations. Conditions are most favorable to this industry. Many are engaged in breeding fancy cattle. horses and hogs and the number becoming interested in dairying is increasing. The poultry industry is growing in favor and farmers. as well as others, are increasing
their flocks and paying more attention to their revenue-producing possibilities.
The mineral resources consist of coal, brick and pottery clay. Work of developing the coal fields is in progress. The clay beds are being utilized in the manufacture of building brick and ordinary pottery and tile. Brick plants are operated at Elgin and a pottery plant at McDade. Indications of oil and gas are numerous, but nothing has been developed of commercial importance along these lines.

An encouraging feature in the development of the resources of this county is found in the issue of $\$ 180,000$ in bonds by precincts for the improvement and construction of surfaced highways.

Improved lands are variously quoted from $\$ 20$ to $\$ 75$ per acre. Unimproved lands are on the market from $\$ 10$ up. Homeseekers are invited. A large area awaits the development of new settlers.

## BAYLOR COUNTY.

Situated in Northwest Texas; created in 1879 from Fannin County and organized the same year; named for Henry W. Baylor; area 957 square miles; population 8,411 in 1910 and 3,052 in 1900 . Seymour, the county seat and chief city, had a population of 2,029 in 1910. Bonarton is another growing market point. The county is served by the Wichita Valley and the Gulf, Texas and Western Railroads.

The surface is generally level or slightly undulating, with some rough land along the streams. It is a prairie country, with sufficient mesquite timber for domestic purposes. Three-fourths is susceptible of cultivation. The soil is generally a dark sandy loam and very fertile. The Brazos and Wichita Rivers, with their tributaries, furnish excellent drainage and an abundance of stock water. Good well water is obtained in most parts at depths varying from twenty-five to forty feet. The rainfall averages 28 inches per annum. This is sufficient under proper cultivation for the production of all staple crops in ordinary years.
Live stock raising, formerly the leading occupation of the people and still important, is gradually giving away before the diversified farmer. The majority of farmers supplement agriculture by the breeding and feeding of fine cattle. horses, sheep and hogs. The rapid progress of Baylor County during the last decade is directly traceable to the development of its agricultural resources. The breeding and raising of blooded and graded live stock is one of the principal factors in the prosperity of the
agriculturist. Many fine animals are shipped into the distant parts of the country for breeding purposes. The poultry industry is claiming the attention of a large number of people and is producing a large revenue annually. Cotton is considered the money crop. A large acreage, however, is devoted to the growing of grains, which include oats, wheat, Kaffir corn, corn and milo maize.

A number of large pastures are still used for ranching purposes, but a sufficient acreage is always on the market to satisfy the demands of homeseekers. Improved farm lands are quoted from $\$ 25$ to $\$ 30$ per acre; unimproved lands from $\$ 15$ to $\$ 20$ per acre.

Among the natural resources are fine quarries of building stone found in the neighborhood of Seymour. Nearly all the business houses in this city are constructed from the products of these quarries. Considerable attention is being paid to the improvement of public highways.

## BEE COUNTY.

Situated in Southwest Texas in the coastal plains; created in 1857 from San Patricio, Goliad and Refugio Counties; organized the following year and named in honor of Gen. Banard E. Bee Sr.; area 875 square miles; population 12 ,090 in 1910, as compared with 7,720 in 1900. Beeville, the county seat and chief city, had a population of 3,269 in 1910. Other important towns are Skidmore, Papalote and Normania. The county is served by the San Antonio and Aransas Pass and the Galveston, Harrisburg and San Antonio Railroads.

The surface is generally level, with a gentle slope toward the coast. A large area is prairie land, but there is sufficient mesquite, post oak, live oak and other kinds of timber for domestic purposes. Fixcellent drainage is secured through Blanco Creek, which forms the eastern border, and the Medio and Aransas Creeks and tributaries, which flow through the county in a southeasterly direction.

The rainfall of approximately 30 inches is well distributed and sufficient for the purposes of diversified farming and fruit and truck growing. Well water is secured at depths varying from thirty to forty feet.

Formerly a county noted for its live stock interests, its citizens are now devoting time and money to the development of fruit and truck lands and in the production of staple crops common to this latitude. Live stock farming has taken the place of ranch life. Cotton is considered the money crop by many, but fruit and truck growers are increasing in numbers
and pushing their industry well up toward the front. Of late year.s considerable attention has been given to the citrus fruit industry. Freezes have discouraged some, but others continue to experiment and will undoubtedly discover nays of making orance growing a commercial success. Several large fig orchards are in cultivation and small orchards are in evidence everywhere. Peaches are successfully grown, as are many of the small fruits. One of the leading industries on the farms, as well as in tre towns, is bee keeping. The annual production of honey will average 200,000 pounds.

There are many naturally good highways, but in line with many other counties of the State, bonds have been issued for road construction and surfaced highways are being constructed in many sections.

Bee County has a standing invitation to homeseekers. A large area is available for new settlers, land being on the market at prices ranging from $\$ 10$ to $\$ 50$ per acre.

## BELL COUNTY.

Situated in South Central Texas; created in 1850 from Milam County and organized the same year; named for Gov. P. Hansboro Bell; area 1,091 square miles; population 49,186 in 1910 as against 45,535 in 1900. Belton, the county seat, had a population of 4,164 in 1910 and 3,700 in 1900. Temple, the chief city of the county, had a population of 10,993 in 1910 and 7,065 in 1900. Other important towns are Killeen, Bartlett, Rogers, Holland, Troy, Pendleton, Salado, Nolanville, Moffat, Seaton, Prairie Dell, Sumner's Mill, Cyclone and Youngsport. The county is served by the Gulf, Colorado and Santa Fe, Missouri. Kansas and Texas, BeltonTemple Electric and Temple and Northwestern and Gulf Railroads. The Quanah, Seymour, Dublin and Rockport has been surveyed through the county. An electric line from Temple to Waco is also a near future possibility. A line from Temple to Austin is contemplated.

The eastern portion is comparatively level prairie land; the central and western portions are slightly hilly, broken by numerous streams and valleys. Various hardwoods, including walnut and pecans, grow along the streams. the latter proving to be an annual source of considerable revenue. Drainage is secured through numerous small creeks and the Salado, Lampasas and Leon Rivers, which join to form Little River. These streams furnish an abundance of water for stock on farms in their vicinity and also provide opportunities for irrigation and water power, many of the valleys
being admirably formed for irrigation and many of the streams being of such nature as to make water storage propositions attractive. Artesian water is secured at a depth of about 1,500 feet, shallow water at 20 to 200 feet. The rain. fall of 34 inches per annum is well distributed.

The soils are noted for their great fertility and productiveness. The uplands in the eastern portion are black waxy, particularly adapted to cotton, corn and grains. Considerable sandy loam is found in the vicinity of Belton, where fruits and truck grow to perfection. There is much black waxy and hog wallow in the central, south and western portions.

The breeding of fine hogs, beet cattle, sheep and goats is conducted along with diversified farming. which is extensively practiced and which is the chief occupation in the rural communities. The dairy industry is making a rapid grow th, and the advent of creameries has caused a remarkable demand for the combination small farm. The dairy industry has increased fully 75 per cent in the last five years, and promises to take precedence in importance over all branches of live stock raising. Apiculture has made for itself a prominent position as a dividend-paying investment. There are 5,450 swarms of bees in the county, and this number will be increased. The poultry industry is interesting practically all small farmers, and a great many are making a specialty of it. Poultry products are handled by local markets in large quantities.

White limestone of excellent quality is found in large quantities and is quarried at Belton. Many traces of oil and gas have been discovered and much prospecting done.

Beiton, the county seat, is making growth and is locating many industries, among them being a large candy factory, flour mills and oil mills. Temple, the chief city of the county, is connected with Belton by the Santa Fe Railroad and an electric line owned iy the Belton-Temple Traction Company. Temple has many thriving industries and is one of the most important railroad division points of the Santa Fe system.

Bell County lands are practically all improved. Large farms are constantly being divided into smaller farms, making room for many new settlers. Lands are quoted from $\$ 40$ to $\$ 140$ per acre. according to location, value of improvements and other considerations. In connection with diversifled farming, many are giving attention to horticulture and peaches. plums, pears, grapes, figs and ap: ples are grown successfully, but not extensively.

## BEXAR COUNTY.

gituated in Southwest Texas; created as an orignal county and organized in 1837; named for Duke V. Bexar; area 1,268 square miles; population 119,676 in 1910, as against 69,422 in 1900. San Antonio, the county seat and chief city of the county, had a population of 96,614 in 1910 and 53,321 in 1900. Other important towns are Adkins, Saunders, Martiniz, Kirby, Converse, Westmore, Eratt, Adams, Elmendorf, Bergs, Hellemans, Heafer, Withers, Macedonia, Kirk, Leon Springs, Viva, Robards, Olga and Grace. The county is served by the San Antonio and Aransas Pass; Missouri, Kansas and Texas; Galveston, Harrisburg and San Antonio; International and Great Northern; Artesian Belt, and San Antonio, Uvalde and Gulf Railroads. An electric line from San Antonio to Austin has been surveyed.

The surface rolling and in some sections hilly and rough. The timber consists almost entirely of mesquite, which grows in quantity and of a size sufficient to make it valuable for fuel and fence posts. Drainage is secured through the San Antonio and Medina Rivers and tributaries. Artesian water exists at depths ranging from 1,500 to 2,500 feet; surface water at much shallower depths. About 2,000 acres - are under irrigation from water gained from the San Antonio River and artesian wells. The rainfall approximates 27 inches.

The soils vary from black waxy to chocolate loam, with clay subsoil. Diversified farming, supplemented with stock raising on the farms, is the leading industry in the rural communities. Dairying in the vicinity of San Antonio is a profitable industry. Poultry raising is attracting attention and is growing to large proportions. Some attention is given to the bee and honey industry.

Deposits of brick clay are found in the southern portions. Oil is produced by pumping from wells near the Medina River and from wells near Somerset. Improved farm lands are quoted from 825 to $\$ 100$ per acre; unimproved, $\$ 15$ to $\$ 50$ per acre. Irrigated lands sell for much higher prices.

Bexar County has a large mileage of surfaced highways, costing approximately $\$ 5,000$ per mile. There are many good graded roads, which have cost approximately $\$ 1,500$ per mile. The county has spent $\$ 500,000$ in bond issues on the highways and also levied a special tax.

San Antonio, according to the 1910 census, was the largest city in Texas. It is a noted health and pleasure resort, and is becoming prominent as a distributing point
for a very large territory in West and Southwest Texas. It is the site of division headquarters of the United States regular army, Fort Sam Houston being one of the largest and best equipped army posts in the United States. The city also enjoys a large trade with Mexico and is rapidly developing along industrial and commercial lines.

San Antonio is also a city of much historical interest, being the site of the famous Alamo. It was here that Travis, Bowie and Crockett, together with 150 men, gave up their lives in the cause of Texas freedom; it was here that this handful of Texans bravely withstood the assault of over $2,000 \mathrm{Mex}$ icans, killing and wounding more than half of the entire Mexican army. The cry, "Remember the Alamo," was later used at the battle of San Jacinto, when the Texans won a complete victory over the Mexican army and established the independence of the Republic of Texas. The chapel of the Alamo, in which the heroes fought. was purchased by the State in 1883 and the long barracks adjoining the chapel in which much fighting occurred was purchased by the State in 1905. They are being restored as nearly as possible to their appearance in the fateful year of 1836.

Within a few miles of the city are many historical missions constructed by the Spanish priests as early as the sixteenth century. In the irrigated district near the city are found traces of irrigation canals which had been constructed by the Indians 300 to 400 years ago. This entire section has been the scene of many events of historical interest to Texans.

## BLANCO COUNTY.

Situated in the south center of the State, west of Austin; created in 1858 from Burnet, Hays, Gillespie and Comal Counties and organized the same year; named for Gov. Blanco; area 762 square miles; population 4,311 in 1910 . Johnson City, the county seat, is an unincorporated town with, an estimated population of 200. Blanco is another town. There are no railroads.

The surface is mountainous, with rugged hills, wide fertile valleys and considerable table land. About one-tenth of the area is covered with timber, which is mainly short live oak, white oak, post oak, elm, hickory, cedar, cypress and walnut. Blanco River and its tributaries water the southern portion and the Perdenales and its tributaries the central and northern portions. The latter is a bold mountain stream, with occasional wild and grand scenery. The valleys are fertile, producing vegetables, melons,
fruits, cotton, corn, oats, rye and barley. The abundance of water and splendid pastures make this county admirably suited for stock raising. The liye stock industry takes precedence over all others. The rainfall ranges from 22 to 26 inches per annum. Lands are quoted from $\$ 5$ to $\$ 50$ per acre, according to the improvements and location. Lack of rail transportation has delayed the development of its agricultural resources.

## BORDEN COUNTY.

Situated in West Texas; created in 1876 from Bexar County and organized in 1891; named for Gale Borden; area 892 square miles; population 1,386 in 1910, as compared with 776 ten years previous. Gale, the county seat and chief town, is unincorporated. Other important towns are Durham and Treadway. There are no railroads.

The surface is generally rolling. broken along the waterways, where the breaks resemble low mountains and hills. The plains are covered by a stunted growth of mesquite, there being no other form of timber. The Colorado River crosses the southern portion and with its tributaries, dry most of the year, furnish adequate drainage. Water is secured from wells which vary from 60 to 150 feet in depth and from water holes and small reservoirs. The rainfall averages 23 inches per annum.

Although nearly all the area is tillable. it is largely occupied by cattlemen, who, while they graze thousands of head of cattle, also farm in a limited way, producing maize, sorghum, Kaffir corn, oats and other grains and feedstuffs. There are few real farmers, but those who adapt their operations and methods to the needs of the country seldom fall short of good results. Small orchards and vineyards have demonstrated the fact that fruit can be grown, but without railroads there is no inducement for any one to make an effort in this direction.

Homeseekers find no trouble in securing well located lands at moderate prices. Lands are quoted at $\$ 10$ to $\$ 20$ per acre.

## BOSQUE COUNTY.

Situated in North Central Texas: created in 1854 from McLennan County and organized the same year; named for the Bosque River; area 972 square miles; population 19,013 in 1910, as compared with 17,390 in 1900. Meridian, the county seat, had a population of 718 in 1910. Other important towns are Wainut Springs, Clifton Iredell. Morgan and Valley Mills. The county is served by the Gulf, Colorado and Santa. Fe and the Texas Central Railroads.

The Brazos River forms the
northeastern boundary for a dis. tance of 100 miles. The Bosque River and tributaries provides drainage for the central section All streams are fringed with hard. woods, including the pecan, which is proving a valuable source of revenue. These streams also provide many opportunities for the conservation of flood waters and the regular flow-off for power and irrigation purposes. Artesian water is obtained in all valleys at depths of 500 to 600 feet, in some place at less depths, but with the exception of watering a few garden: and small tracts this source is not developed for irrigation purposes, A number of small irrigation plants are in operation along the Brazos. The surface is diversified. There are many valleys of fertile alluvial soil, broad rich uplands, about half of which are in cultivation, and also much rough, hilly land more suitable for pastures than for tilling.

The rainfall approximates 32 inches and in average years the various staple crops common to this latitude are abundant producers. Cotton is the chief field money crop. Of late years a very large acreage of oats and other grains has been planted. The trend is more and more toward large feed crops, due, in a large measure, to an increasing interest in live stock farming.
Soils and climate are suited to fruits and truck, but neither are attempted on a commercial scale. Diversification and crop rotation methods are being employed by advanced farmers and their success in increasing acre yields is producing splendid results among farmers with the one-crop idea.
Neither county nor precincts have issued bonds for road construction, but a special tax of 15 c is levied and with this additional money over 200 miles of roads have been surfaced and many other roads graded and placed in good condition.

About one-half of the arable land is under cultivation and homeseekers are welcomed. Land values vary from $\$ 10$ to above $\$ 50$ per acre.

## BOWIE COUNTY.

Siuated in the northeast corner of the State; created in 1840 from Red River County and organized in 1841; named for James Bowie; area 904 square miles; population 34.827 in 1910 and 26,676 in 1900. Boston, the county seat, is unincorporated. Texarkana. Tex., the chief city of the county, had a population of 9,790 in 1910 and 5,256 in 1900. Texarkana, Ark., a portion of the city of Texarkana, had a population of 5,655 in 1910 . Other important towns are Dekalb, Redwater, Maude, Oak Grove, Dalby

Springs, Leary, Park and Hooks. The county is served by the Texas The Pacific; $S t$ Louis Southwestern; Kansas City Southern, and Northeast Texas Railroads. It is bounded by the Red River on the north and Sulphur River on the south and these streams. with their tributaries, provide an abundance of water for all purposes and give excellent drainage in most sections. The annual rainfall in this section of the State averages above 45 inches, well distributed throughout the year. There is also a splendid underground water supply at moderate depths. The surface is generally level, though rolling in some parts. It is heavily timbered and the lumber industry employs many men. The soil in the hills is light and that along the river is deep red or black loam. Although in the pine belt, much of this kind of timber has been cut away, but there still remains a heavy growth of white oak, red oak and burr oak, as well as nearly every other species of timber common to ths latitude.

Diversiffed farming and fruit growing are important industries. cotton and corn are leading staple crops. A large acreage is devoted to peanuts and hay. Peaches are shipped in car load lots. Apples, pears, strawberries and figs are grown in large quantities. Live stock raising in connection with diversified farming is producing large revenues to farmers. A live interest is manifested in the dairying industry and two creameries are operated in Texarkana. Many farmers ship their milk and cream to city consumers. Chickens and turkeys are raised for the market and poultry products are shipped in car load lots.
Valuable deposits of coal are being developed at Carbondale. Traces of oil and gas have been found and prospectors are making an effort to locate fields.

Good roads are beginning to be mppreciated. Precinct No. 1, at Texarkana, issued $\$ 250,000$ in bonds and has constructed fortytwo miles of highways at a cost of $\$ 6,000$ per mile. Other precincts are contemplating better highways.

Texarkana, situated on the Tex-as-Arkansas line. is a thriving city of nearly 20,000 people. It has two municipal governments, but many of its public utiliities are operated on both sides. The city is becoming noted as an industrial center, among its manufacturing plants being a large window glass plant, sash and door plant, tile and pottery plants, machine shops, etc. It is also a railroad center of importance.

While great areas of the county are covered with forests. conditions are such as to provide excellent opportunities for new settlers.

Lands are plentitul and cheap, values varying from $\$ 8$ to $\$ 20$ per acre for unimproved and from $\$ 10$ to $\$ 35$ and above for improved farms.
brazoria county.
Situated on the Gulf coast bordering Galveston County on the east; one of the original counties of Texas; called for a municipality of the same name; area 1,438 square miles; population 13,299 in 1910 and 14,861 in 1900. Angleton, the county seat, is an unincorporated town with an estimated population of 1,000 Alvin, the chief town in the county, has a population of 1,453 . Other important towns are Brazoria, Columbia, Sandy Point, Velasco. Manvel, Anchor, Pearland, Quintana, Freeport and Danbury. The county is served by the Gulf, Colorado and Santa Fe, St. Louis, Brownsville and Mexico, International and Great Northern, Houston and Brazos Valley and the State Farm Railroads.

The Brazos River, the largest stream in the state, flows through the west central section. Chocolate Bayou serves the eastern section, San Bernard River the western section, Oyster River the central section, while Caney Creek forms the western boundary. These streams are sluggish and deep, and in this county have but few tributaries. Owing to the level country and very gradual slope toward the Gulf, conditions, from an agricultural standpoint, are greatly improved in districts where artificial drainage is employed. The drainage question is fully appreciated, and eight drainage districts have systems covering 364,000 acres. These systems are giving perfect satisfaction and have greatly increased the productive power of the lands, as well as made living conditions much more pleasant. Other districts are in process of oreanization at this time.

The rainfall averages 46 inches per annum. Artesian water is secured at a depth of 100 to 600 feet. Good well water at depths varying from fifteen to forty feet. There is an abundance of water for all purdoses in all sections.

Although one of the oldest sections of Texas in point of discovery and settlement, the vast resources are now only in the first stages of development. Previous to the Civil War the rich bottom lands were occupied by great plantations. With the freedom of the slaves came the abandonment of olantation life and the great fields quickly grew up to brush and forests, but again their great fertility is being recognized and twentieth century ploneers are opening up farms.
Except in places where lands have been cleared for agricultural
purposes, the bottom lands are covered with a heavy growth of hardwoods. Many of the upland sections are timbered with pine and hardwoods, but there are also vast expanses of coastal prairies formed of rich black loams, with some sand. The bottom lands are rich alluvial and rank among the most fertile of the country.

Although the rainfall is heavy and regular, some 2,000 acres are irrigated for rice. Other crops consist of cotton, sugar cane, corn, small grains, all kinds of vegetables and fruits. In some sections the live stock interests predomimate, and in all sections cattle, horses, mules and hogs are important factors on the farm. The fruit and truck industries are making rapid progress, soils and climate being excellent for early spring and winter gardens. With better organizations for marketing, these lines will feature the industries of the county.

Oil fields have been developed at Kizer Mound, Haskin's Mound an.l Bryan Heights. The large sulphur deposits near the mouth of the Brazos River are being developed by Eastern capital and a new town and deep water port known as Freeport, is being constructed. Velasco is already a deep water port, having more than twenty feet of water in the river and about the same depth across the bar at the mouth.

Among the other industries is the making of syrup and sugar. The sugar industry is growing in importance. Conditions favor a rapid expansion in this line.

Land values have a wide range. A large acreage is available and new settlers are invited.

## BRAZOS COUNTY.

Situated in South Texas; created in 1841 from Washington and Robertson Counties and organized in 1843: named for its location. "Forks of the River:" area 510 sauare miles: population 18,919 in 1910 and 18,859 in 1900. Bryan, the county seat and chief city, had a ponulation of 4,132 in 1910 and 3589 in 1900 Other important towns are Wellborn. College Station, Steele's Store. Harvey, Kurten and Fidge. The county is served bv the International and Great Northern. Houston and Texas Central. Fulf, Colorado and Santa Fe and Hearne and Brazos Valley Railroads. An interurban line also connects the city with valley prints.

The surface is generally level, with a slicht elevation midway between the Brazos and Navasota Rivers. It is well timbered with post oak, pin oak. hickory and elm. The Brazos River is on the west and the Navasota River on the Digitized for FeastERThe county is traversed by
several large creeks. Artesian Water is found at a depth of 500 feet; surface water at much shal. lower depth. Fifteen thousand acres have been reclaimed by drainage districts and levees from overflow at the expense of $\$ 49,000$. A $\$ 10,000$ bond issue has been sold. the proceeds of which will be used for the completion and maintenance of the levees and ditches. The rainfall of the county approximates 38 inches per annum.

The soil in the Brazos bottom is a deep reddish alluvial and in the creek bottoms a rich black; sandy loam prevails on the up: lands. Both conditions of soil and climate favor the production of cotton, corn, other grains and feedstuffs as well as many varieties of fruits. Farmers are generally of the progressive kind and are devoting themselves to the application of modern methods, rotating crops and raising large numbers of hogs, cattle and horses. Not a few have given special attention to the raising of well-bred poultry and some care for several colonies of bees. The agricultural interests are very large and becoming more valuable with the introduction of better methods of cultivation and an increasing mileage of good roads.

College Station, five miles from Bryan, is the seat of the A. \& M. College of Texas, where 1,200 young men are engaged in the study of scientific agriculture, animal husbandry and the various kindred lines. The presence of experts in all matters pertaining to the farm is a distinct advantage to the farmers of this section.

There is a great variety of soils and choice lands and prices range accordingly. Improved lands are quoted from $\$ 25$ to $\$ 100$ per acre; other lands from $\$ 7.50$ to $\$ 20$ per acre.

## BREWSTER COUNTY.

Situated in Southwest Texas, bordering the Rio Grande; created in 1887 from Presidio County and organized the same year; named for H. P. Brewster: area 5,006 sauare miles; population 5,220 in 1910, as against 2.356 in 1900 . A1pine, the county seat and chief city, is unincorporated and has an estimated population of 2,300 . Other important towns are Marathon and Herlingua. The county is served by the Galveston, Harrisburg and San Antonio and the Kansas City, Mexico and Orient Railroads.

The surface is mountainous, with many hills and intervening valleys. The mountains are rich in minerals, nearly all kinds being found. One of the largest quicksilver mines in the United States is being operated in the Terlingua district. Several other mines are operated
in varluus sections. There are also rich silver mines, vast quantities of excellent marble, iron, lead and copper. The mining interests engage a large number of laborers. In importance the industry outranks the raising of live stock. Because of the lack of transportation and an adequate water supply the great mineral wealth has not been fully developed, but with the coming of more railroads and the boring of deep wells, tapping the underground supply of water, it is believed that these valuable deposits of minerals will be developed, bringing the output to hundreds of thousands of dollars in value.
The live stock interests rank next to the mining interests and many car loads of stock are shipped during the course of the year. Although the soils in many of the valleys are rich, the lack of adequate rain has made farming unprofitable. Wherever an adequate water supply has been obtained for irrigation purposes, apples, peaches, plums, grapes and apricots have thrived, the quality of the fruit being excellent.
$A$ number of the citzens have demonstrated that Brewster County is adapted to the bee and honey industry and the number of swarms of bees is being increased annually.
Along the Rio Grande and some of the small creeks which rise from springs small patches are irrigated and devoted to fruit growing and to alfalia and truck products. Practically all of the large ranches in the county have land under irrigation for the purposes of growing vegetables and fruit for home consumption. In many sections wells are obtained at depths ranging from 15 to 500 feet.

Besides the various valuable minerals and deposits of marble and granite, oil has also been discovered, but the field has not been developed.

At Marathon a large rubber factory is operated rubber being taken from the guayule, which grows luxuriantly on the mountainsides. Various industries are supported at Alpine.

Brewster County contains some of the highest mountain peaks in Texas. A number of them reach altitudes from 4,000 to over 8,000 feet. In the southern portion of the county is the Tas Lingas Creek, which empties into the Rio Grande just below the mouth of the Grand Canyon. This canyon is one of the wonders of the American continent. In places the walls rise perpendicularly a distance of 1,700 feet. Its great distance from the railroads has resulted in its being little known to the people of the country.

## BRISCOE COUNTY.

Situated in the Panhandle; created in 1876 from Bexar County and organized in 1892; named for Andrew Briscoe; area 850 square miles; population 2,162 in 1910 , as compared with 1,253 in 1900 . Silverton, the county seat and chier town, had a population of 700 in 1910 and 250 in 1900 . Quitaque is another town. There are no railroads.

About one-half lies on the Plains and is slightly rolling; the remainder in the Red River break and is rough. The main topographical feature is the break between the upper and lower plains, known as the cap rock, the drop measuring 1,000 feet within a distance of a few miles.

There is very little timber. The upper reaches of the Red River and its tributaries cross the northern portion, while a branch of the Pease River cuts into the southern portion. There is an abundance of water 100 feet beneath the surface, from which small tracts of land are irrigated. The rainfall approximates 24 inches per annum.

As this sheet of water underlying Briscoe County has been found to be practically inexhaustible, many citizens are discussing the practicability of irrigation from wells. The experiment has been successfully tried and it is belleved that a large acreage will thus be brought under cultivation.

The soil varies from a dark to a chocolate loam about six feet deep on the Plains. That of the Red River Valley and adjacent plats is mostly sandy loam. Along other water courses the soil is slightly impregnated with gypsum and other minerals, but not in sufficient quantity to make them unproductive.

Stock raising has been the chief industry in Briscoe County for many years. The development of the water resources, together with improved methods of cultivation. is making diversified farming an important and interesting feature. Cotton and wheat are leading crops. Ainfalfa. Kaffir corn, millet and all other Panhandle and Plains staples are successfully produced. Practically 95 per cent of the county is tillable. For many years small orchards of apples, peaches and plums have been pro: ducing large crops of excellent fruit. These ranch home orchards have demonstrated that the soil and climate are adapted to fruit growing.

Although there are many large pastures, a large acreage is on the market and unimproved lands may be purchased at from $\$ 15$ to $\$ 25$ per acre. Improved farm lands are quoted at from $\$ 20$ to $\$ 30$ per acre. Although without railroad transportation, Briscoe County
lands are being rapidly settled and newcomers are demonstrating its agricultural possibilities.

## BROOKS COUNTY.

Situated in Southwest Texas; created and organized in 1911 from portions of Hidalgo, Starr and Zapata Counties, with an area of 1,964 square miles. In 19131,078 square miles was taken to form a portion of Jim Hogs County, leaving an area of 912 miles. As the county was created after the census of 1910, its population can not be given officially. It is served by the San Antonio and Aransas Pass Railroad, which has its terminus at Falfurrias, the county seat.

The surface is gently rolling, and in most sections covered with a growth of mesquite. The soils are of a sandy loam variety and excellently adapted for the conservaton of moisture, which makes possible the successiful practice of diversified farming and stock raising. The rainfall averages 24 inches per annum and is well distributed during the growing months. An artesian strata underlies nearly the entire area, and in the vicinity of Falfurrias, in the northeast corner, a small acreage is irrigated, the principal crops being early truck ana fruits. Cotton is grown quite extensively, as are the various kinds of feedstuffs.
A large area is entirely devoted to ljve stock raising on ranches. There are many large herds of well-bred stock, the old-time Texas animal disappearing from the ranges several years ago. In the vicinity of Falfurrias the dairy industry and the breeding of dairy animals is prominent. One of the largest herds of pure-bred Jersey cattle in the United States is found on the ranch of Ed C. Lasater.

Lands in the artesian district. where irrigation is practiced, are quoted from $\$ 50$ to $\$ 150$ per acre. Other lands vary in price from $\$ 5$ per acre and up.

Soils and climate, where irrigation is possible, favor fruit and truck growing, and this industry gives promise of attaining largu and profitable proportions.

## BROWN COUNTY.

Situated in Central West Texas; created in 1856 from Travis and Comanche Counties and organized the following year; named for Henry $S$. Brown; area 911 square miles; population 22,935 in 1910, as against 16,019 in 1900. Brownwood, the county seat and chief city, had a population of 6,967 in 1910 and 3,965 in 1900. Other important towns are Blanket, May, Winchell, Zephyr and Brooksmith. It is served by the Gulf, Colorado and

Santa Fe, Fort Worth and Rio Grande (Frisco) and Brownwood North and South Railroads.
The surface is rolling, with many fertile valleys and ievel table lands. Ranges of hills, varying in height from 100 to 300 feet, border the valleys. There is sufficient amount of timber for domestic purposes, the principal varietiea being post oak, live oak, elm and mesquite. The Pecan Bayou flowa centrally through the county from northwest to southeast, while the Colorado River forms the southern boundary. These streams, with their tributaries, furnish an abundance of water and excellent drain. age. Many pecan trees grow along the streams and nuts are marketed in large quantities. The underground supply of water is reached at a depth of from twenty to sixty feet. The rainfall averages $26 \frac{1}{2}$ inches per annum. Many cisterns are in use, while in some sections stock water is conserved in water holes.

More than one-halt of the lande of the county are arable. Approximately 3,000 acres are irrigated With water taken from the rivers and creeks.

The soils considered most fertile are diversified black, gray and chocolate loam and a red clay and black tenacious lime soll. The live stock industry has always been prominent. There has been a general improvement in the grades of stock and increasing attention is given to dairy animals.

Diversified farming is becoming more general. Cotton is the leading crop. Wheat, barley, milo maize, corn and Kaffir corn, as w.ell as various forage crops, produce abundantly. A large acreage is devoted to sweet potatoes, Irish potatoes and truck. Peaches, grapes, figs, plums and apples are proven fruits.
The county has abundant deposits of limestone, which have been developed for local use. There are also deposits of brick clay. Considerable oil of high grade is produced from shallow wells and efforts to develop a large field give indications of success. Gas has also been discovered and the flelds near Irownwood and Bangs are being developed.

Brown County has taken the lead among west central counties in the construction of good roads. Forty miles of paved highway were constructed in the precinct of Brownwood at a cost of $\$ 150,000$. The cost of these roads varied from $\$ 1,500$ to $\$ 2,500$ per mile. Other precincts are considering bond issues for public highways.

Brownwood is a growing Central West Texas city and has become the distributing point for a large territory.

BURLESON COUNTY
Situated in Central Texas; created in 1846 from Milam and Washington Counties and organized the same year; named for Gen. Edward Burleson; area 677 square miles; population 18,687 in 1910 , as compared With 18,367 in 1900. Caldwell, the county seat, had a population of 1,476 in 1910 and 1,535 in 1900. Other important towns are Somerville, Lyons, Deanville and Chriesman. The county is served by the Gulf, Colorado and Santa Fe and the Houston and Texas Central Railroads.
About 90 per cent of the area is arable and nearly equally divided between dense forests and high rolling prairies. Besides a broad belt of prairie extending from the northeast to southwest, the tim: bered sections in the southeast and northwest are interspersed with many small prairies. The timber is principally hardwood of various kinds. The soil on the prairies is a dark loam and in the bottoms a reddish brown alluvial. The Brazos River forms its eastern boundary, the First Yugua Creek its western and southern boundaries. Davidson Creek flows through the center. Artesian water is found at depths varying from 200 to 1,200 feet. Surface water is found at much shallower depths. The rainfall approximates 43 inches per annum.

Burleson County is leading in the reclamation work of the rien bottom lands along the Brazos River. Two drainage districts have been organized, district No. 1 including 50,000 acres and district No. 25,000 acres. Bonds amounting to $\$ 250,000$ have been issued to cover the work in district No. 1 and $\$ 10,000$ to cover the work in district No. 2 A Ievee twentyeight miles in iength has been constructed on the south bank of the Brazos River to protect 55,000 acres of land from overflow, A large acreage is in cultivation, cotton and corn being the leading staple crops. Grain and various forage crops, potatoes and truck yield heavily. Most farmers are growing peaches, pears and grapes for home use and supply the local market. Live stock raising is conducted on the farms, special attention being given to cattle and hogs. The poultry industry has attained large proportions. Poultry products are shipped in car load lots.

Lignite has been discovered, but the extent of the deposits has never been determined. A fine brick clay also exists.

Considerable attention is being given to the improvement of publie highways, a special tax of 15 c per $\$ 100$ being assessed for road purposes. County convicts are employed in road building.

It is estimated that about one-
half of the arable land is in cultivation. Much of the timber land is very fertile and easily cleared. Land prices vary according to 10 cation and value of improvements. Eighty dollars per acre is about the maximum price in the county Unimproved land may be purchased from $\$ 5$ to $\$ 25$ per acre.

## BURNETR CUUNTY.

Situated near the geographical center of the sitate, northwest from Austin; created in 1852 from Travis, Williamson and Bell Counties and organized in 1858; named for David G. Burnet; area 1,010 square miles; population 10,765 in 1910 and 10,528 in 1900 . Burnet, the county seat, had a population of 981 in 1910. Other important towns are Marble Falls, Bertram and Lake Victor. It is served by the Houston and Texas Central Railroad.

The surface is mountainous and rolling except the eastern portion, which is level prairie land. The soils are sandy, black waxy and red, the last mostly in the southern portion, formed largely from the washings from the mountains. The rolling lands are generally productive. Timbers are varied, post oak, water oak, pecan and great forests of cedar yield large revenue. There are also cypress, cottonwood, beach, hackberry, elm and an abundance of mesquite. The cedar post industry is an important one. The Colorado River forms the west and south boundaries. There is a natural fall at Marble Falls and this has been taken advantage of for the production of power. Several smaller streams supplement this supply of water Wells are obtained at 80 to $200^{\circ}$ feet. The rainfall averages 23 inches per annum.

Much of the country is specially adapted to the grazing of live stock, but in the valleys and portions of the uplands a large acreage is in cultivation, all staple crops, such as cotton, corn, oats and feedstuffs being produced. Peaches, melons, figs, grapes and berries and all kinds of vegetables are grown in small quantities. Conditions favor more extended efforts in this direction. Nearly all farmers raise poultry and many have become interested in bees.

The mineral resources are many and valuable Building stone, including excellent granite and marble, exist in inexhaustible quantities, granite being quarried exten. sively for buildings and moniments and for Government work on the coast. The seawall at Galveston and the Galveston jetties were constructed from granite taken from Granite Mountain. Lithograph stone, silver, iron, traces of gold and rare metals exist in the-hills. These resources
have never been fully exploited, but experts who have investigated are of the opinion that they will prove of immense value in the future not far distant.

Agriculture and grazing lands are variously quoted at $\$ 10$ to $\$ 60$ per acre.

## CALDWELL COUNTY.

Situated in South Central Texas, one county south of Travis; creat. ed in 1848 from Gonzales County and organized in 1858; named foi Matthew Caldwell; area 530 square miles; population 24,237 in 1910 and 21,765 in 1900. Luckhart, the county seat, had a population of 2,945 in 1910 and 2,306 in 1900 . Other important towns are Max well, Luling, Reedville, Mendoza, Dale and Fentress. It is served oy the Missouri, Kansas and Texas, Galveston, Harrisburg and San Antonio and San Antonio and Aransas Pas:s failroads.
The surface is generally level. The soils consist of a rich black waxy prairie land on the north and west, productive sandy loam on the east and alluvial. soils in the bottoms. The timber on the prairies consists of mesquite and scattering live oak. The sandy lands and along the streams are well timbered with elm, post oak, hackberry, pecan, cottonwood, hickory and walnut. The San Marcos River, noted for its picturesque scentry as well as for the volume of water, and a number of smaller stream. furnish an abundance of water. Good drinking water can usually be reached at a depth of $t .212$ to forty feet.

Among the natural resources are found large deposits of iron are. These deposits are found in the eastern part on an elevated ridge called the Iron Mountain. There are large quantities of good building stone, also valuable deposits of clay located in the central portions.

The rainfall approximates 30 to 33 inches per annum. This is sufficient in ordinary years for the production of staple crops, track, fiuit and melons. Not many years s:go the county was fiven over largely to the stock ralsing industry, but the invasion of farmers has placed a large acreage under cultivation. Cotton, corn, oats, barley, sorghum and hay are chief staple crops and are produced in large quantities. A large acreage is devoted to sweet and Irish potatoes, melons, all kinds of vegetables, grapes, peaches and various other fruits. Irrigated farming is practiced in a small way only by a few farmers along the San Marcos River. Although there are opportunities for irrigating large sections, the rainfall is sufficient for ordinary farming.
Digitized for FKaldwell County is rapidly set-
tling with an intelligent and in. dustrious class of farmers, and the price of land is advancing accordingly. However, a large acreage is yet available for nomeseekers, and good lands may be purchased at prices from $\$ 10$ to $\$ 50$ per acre. Some improved farms are quoted at higher prices.

With splendid transportation facilities, equable climate and rich soil, Caldwell County offers to the homeseeker and investor many opportunities.

## CALHOUN COUNTX.

Situated on the Gult coast southeast of San Antonio; created in 1846 from Victoria, Jackson and Matagorda Counties and organized the same year; named for John C. Calhoun; area 592 square miles; popuiation 3,635 in 1910, as against 2,395 in 1900. Port Lavaca, the county seat and chief city, had a population of 1,699 in 1910. Other important towns are Port O'Connor, Seadrift and Olivia. It is served by the Galveston; Harrisburg and San Antonio and the St. Louil, Brownsville and Mexico Railroads.
The surface is level, sloping gradually to the coast. Timber is found only along the water courses. It is drained by the Guadalupe River, Big Chocolate, Little Chocolate, Six Mile, Cox, Keller's and Caloma Creeks. Artesian water exists at a depth of 280 feet. Surface water at much shallower depth. A portion of the county is low and artificial drainage is necessary for the best results. One drainage district covering 4,000 acres has been completed at a cost of $\$ 10,000$. About 500 acres devoted to rice is under irrigation from the Guadalupe River. The rainfall averages from 35 to 40 inches per annum. The soiil around Port Lavaca is a deep black waxy. The remainder is sandy and chocolate loam, with some black sand.
Calhoun has been important as a live stock county, but many large ranches are being cut into farms and a large acreage is deyoted to staple crops, truck and fruit. Many stock raisers are interested in the production of fine horses, jacks and swine. Practically all farmers are devoting a portion of their energy to the poultry industry.

Port Lavaca is important because of its great fish and oyster industry. Production of oysters amounts to many thousand barrels yearly, many men being employed in the oyster houses and on the oyster and fishing boats. Port Inavaca enjoys light draft navigation and is hopeful of becoming a deep water port. Owing to the nature of the soll and the lay of the country, good roads are essential to cheap transportation. Consider-
able interest is being manifested in the question of improved public highways, and bond issues for that purpose are under discussion.
improved lands are quoted from $\$ 25$ to $\$ 60$; unimproved from $\$ 20$ up.

## CALEAHAN COUNTY.

Situated in Centrad West Texas a little north of center; created in 1858 irom Bosque. Travis and Bexar Counties and organized in 1877; named for James N. Callahan; area 882 square miles; population 12,973 in 1910 , as against 8,768 in 1900 . Baird, the county seat, had a population of 1,710 in 1910 and 1,502 in 1900. Other important towns are Cross Plains, Clyde, Putnam, Cottonwood, Eagle Cove and Eula. It is served by the Texas and Pacific and the Texas Central Railroads.

The surface is generally rolling. Running a northeasterly direction from a point a little south of the center of its west line to a point near the city of Baird and then making an elbow, going southeasterly to a point south of the center of its east line, is the divide between the waters of the Brazos and Colorado Rivers. South of the divide drainage is into the Pecan Bayou through the Colorado River, while on the north is through the various tributaries of the Brazos River. The valleys are very fertile and constitute the arable land. Post oak, black jack and cedar are found in several sections.

About one-third of the county is arable, the remainder fine pasture land. The soils vary from a light sandy to a dark loam. The mean annual rainfall approximates 25 inches. The underground supply of water is 2 eached at dopths varying from fifteen to forty feet.

Live stock raising is the leading industry, but the agricultural and horticultural interests are making rapid progress. All farmers raise large flocks of poultry. Peaches, plums and grapes are shipped to outside markets. Apples have been found to prosper and several large orchards have been set out.

The cattle interests have control of a large area of the county, but a large acreage is available for new settlers. Lands are quoted from $\$ 15$ to $\$ 25$ per acre.

## CAMERON COUNTY.

Situated in the extreme southern point of Texas, bounded by the Gulf of Mexico on the east and the Rio Grande on the south; created in 1848 from Nueces County and organized the same year; named for Ewen Cameron; area 671 square miles; population 27,158 in 1910, as compared with 16,095 in 1900. (Census taken before a portion of the county was taken to form Willacy County.) Brownsville. the county seat and chief
city, had a population of 10,517 in 1910 and 6,305 in 1900 . Other important towns are San Benito, Harlingen and Raymondsville. It is served by the St. Louis, Brownsville and Mexico, the Rio Grande and the San Benito and Rio Grande Interurban Railroads.

The surface is a nearly level alluvial prairie, rising gradually from the Gulf coast. Along the banks of the Rio Grande are groves of lignum vita, ebony, Brazilwood and huisache. Mesquite grows in considerakle quantities. The Rio Grande is the only living stream. A good supply of tresh water, both for stock and domestic purposes, is obtained from wells at depths of twenty-five to thirty feet. Ponds, lakes, tanks and cisterns are in general use. The rainfall approximates 27 inches per annum.

Because of large areas along the Rio Grande now under irrigation, drainage has become a necessity. Drainage districts covering 183,357 acres have been completed. Other drainage districts are contemplated. A series of levees to hold back the waters of the Rio Grande have been constructed.

The soils in the Rio Grande Valley are exceptionally deep and fertile. They are made of washings from the river and the valley is frequently compared to the valley of the Nile because of its great productiveness. The soils on the uplands or prairies are of lighter nature and are very productive wherever water can be placed upon them. The lands back from the river are mostly devoted to large pastures and cattle raising is the chiel industry.

Along the river irrigated farming is practiced extensively, there being approximately 50,000 acres under cultivation and 80,000 within reach of the present irrigation systems. Some of these irrigation systems are among the largest in the United States, the more important main canals ranging in width from 150 to 200 feet and in depth from eighteen to twenty feet. Irrigation is carried on by gravity system, it being necessary only to raise the water from the river into the ditches. In one instance the bank of the river has been pierced and the water permitted to flow into the main canal by raising a gate in a lock and dam. Approximately $\$ 3,000,000$ has been expended in perfecting the present irrigation systems in Cameron County. Large sums are being spent annually in increasing the acreage under irrigation.

At the present time cotton is one of the chier money crops in the irrigated districts. However, the seasons are such that several crops are grown on the same land each year. Many hundreds of
acres of Bermuda onions are grown and many hundreds of cars of cabbage and various vegetables are shipped during the winter and early spring. The lower shelf of the valley is particularly adapted to the growth of sugar cane for sugar-making purposes. It is pronounced by experts and has been proven by actual demonstration that this valley is the richest sugar proposition on the American continent. Lack of capital among farmers has made the development of this industry slow, but the acreage is gradually being increased. Several large sugar mills have been established and plans are on foct to develop a number of large sugar plantations.

Although but little attention has been given to horticultural products, it has been demonstrated that figs, citrus fruits, grapes and dates can be successfully grown, and the interest in the production of subtropical fruits is on the increase.

Lands in the irrigated section vary in price from $\$ 90$ to $\$ 300$ per acre. Unimproved lands outside of the irrigated district are quoted from $\$ 10$ to $\$ 50$ per acre. Considerable interest is being manifested in the bee and honey industry and approximately 2,000 swarms are cared for in the county.

Brick clay is abundant and bricks are manufactured at San Benito, Brownsville and Harlingen.

## CAMP COUNTY.

Situated in Northeast Texas; ereated in 1874 from Upshur County and organized the same year; named for J. L. Camp; area 217 square miles; population 9,551 in 1910, as against 9,146 in 1900. Pittsburg, the county seat, had a population of 1,916 in 1910 and 1,783 in 1900. Leesburg, Newsome. Pine and Mattlnburg are other important towns. It is served by the Missouri, Kansas and Texas and the St. Louis Southwestern Railroads.

The surface is hilly, with some level land and many fertile valleys. It is well supplied with timber, the principal varieties being pine, oak, hickory and gum. There is a good natural drainage through the Big Cypress. Little Cypress and Lilly's Creeks. There is an underground supply of water at a depth of twenty to thirty feet. The rainfall approximates 45 inches per annum. The soll is mostly sandy loam and very productive.

The agricultural and live stock interests are large. Cotton is the leading crop. but all stanle crops generally grown in Eas Texas are abuindant producers. The Elberta peach is the leading iruit. although grapes, plums and strawberries are grown in large acreace. Camp County is noted for the high aual. ity of cantaloupes and melons,
which are shippod to various Texas markets. The poultry industry in also beginning to assume a magni. tude of importance.

Lignite coal is mined within a few miles of Pittsburg. There ara valuable deposits of iron ore, shalg and potter's clay in the county. The prospect for developing th: iron ore beds are bright. Thus far the deposits of clay have not been utilized. There are many surface indications of oil and gas. Camp County citizens are manifesting an interest in good roads and a bond issue of $\$ 50,000$ is being discussed by taxpayers.

Lands are quoted variously from $\$ 12$ to $\$ 50$ per acre.

## CARSON COUNTT.

Located in the central Panhardie; created in 1876 from Bexar County and organized in 1888; named for Samuel P. Carson; area 860 square miles; population 2,127 in 1910. as against 469 in 1900. Panhandle, the county seat and chief city, had a population of 521 in 1910. Other important towns are Groom, Conway and White Deer. The county is served by two railroads-Southern Kansas of Texas (Santa Fe) and the Chicago, Rock Island and Gulf.

The surface is mostly level prairie, almost devoid of timber. It is drained by White Deer, McClellan and Dixon Creeks. An abundance of good water is found at a depth of about 300 feet. The climate is dry, the average rainfall amounting to 24 inches per annum. The altitude is above 3,000 feet. The soil is largely dark, heavy loam. Live stock raising is a leading industry, although splendid ylelds of wheat, oats, barley, rye, corn. cane. Karfir corn and maize are obtained by those who cultivate the soil. Cane is grown largely for seed. Peaches, grapes, plums and apples are proven fruits.

Improved farm lands are quoted in the neighborhood of $\$ 25$ per acre: unimproved lands at from $\$ 15$ to $\$ 20$ per acre.

A large acreage is available for new settlers. The agricultural possibilities of the county are being demonstrated on a large scale each succeeding year.

## CASS COUNTY.

Situated in Northeast Texas, bordering Louisiana and one county removei from the Red River; crea.ted in 1846 from Bowie County and organized the same year: named for Lewis Cass: area 945 sauare miles; podulation 27,587 in 1910, as comprred with 22,841. Linden, the county seat, is unincorporated. Other important towns are Atlanta. Hughes Springs, Queen City and Blumberg. It is served by the Texas and Pacific, Missouri. Kansas and Texas, Kansas City

Southern, St. Louis Southwestern and Jefferson and Northern Railroads.
The general surface is level and undulating, and in some portions broken by low hills. Approximateiy 40 per cent is covered with forests of short-leaf pine and various hardwoods. Sulphur Fork of the Red River forms the northern boundary line, Black, Cypress, James Bayou, Frazier's, John's Flat and Kelley Creeks and numerous smaller atreams distribute a never-failing supply of water. Springs are numerous and a good underground supply of water is found at depths of from ten to fifty feet. The rainfall approximates 45 inches per annum.
The soll is a free productive gray loam interspersed with a small proportion of red sandy land. It is easily tilled and very productive. The bottum lands are adapted to ribbon cane and the uplands are devoted to fruit and truck growing; both of these have attained considerable importance and large shipments are made in season to Northern markets. Peanuts are an important agricultural product. Live stock raising is conducted along with diversified farming. The heavy yield of peanuts and other forage crops is encouraging the swine industry and shipments of fat stock to market are increasing in number and quantity each year. The bee and honey industry is assuming some prominence. The poultry industry is making rapid growth.

Valuable deposits of iron ore exist and steps are being taken to develop the fields. Options are held by Northern and Eastern capitalists and shipments are being made via Port Bolivar to the Eastern smelters. Gas and oil fields are found in the eastern portion. Many thousands of acres are unoccupied and opportunities for new settlers are many. Lands are quoted from $\$ 8$ to $\$ 25$ per acre.

CASTRE COUNTY.
Situated in the Plains country; created in 1876 from Bexar County and organized in 1891; named for Henry Castro: area 870 square miles: population 1,850 in 1910 and 400 in 1900 . Dimmit, the county seat, is unincorporated. The county is served by the Pecos and North Texas Railroad (Santa Fe system), which crosses the northwest corner.

The surface is rolling, nearly level. with many dry lakes scattered throughout the territory. These lakes are filled after rains. An abundant surply of underground water is found at depths from 30 to 200 feet. Small truck patches are irrigated with water ot tained from wells. The rainfall is from 16 to 18 inches per annum.

The soils are mostly sandy loam, some black land, and all very productive when given water. Live stock raising is the chief industry. although under dry farming methods staple crops of the Panhandle are grown. Cherries, grapes, apples and plums are proven fruits and enough are grown to supply home consumption. Considerable interest is being manifested in the possibilities of irrigation from wells, although development work has been backward.

Improved farm lands are quote 1 at $\$ 10$ to $\$ 20$ per acre; unimproved from $\$ 8$ to $\$ 15$ per acre. A large acreage is a vailable for settlement.

## CHAMBERS COUNTY.

Situated on the Gulf coast, one county removed from Louisiana; created in 1858 from Liberty and Jefferson Counties and organized the same year; named for Gen. Thomas Jefferson Chambers; area 648 square miles; population 4,234 in 1910 and 3,046 in 1900. Anahuac. the county seat, is an unincorporated town. Other important towns are Winnie, Stowell, Wallaceville, Hankamer and Double Bayou. It s served by the Gulf and Interstate Railroad (Santa Fe).

The surface is level, with a gentle slope toward Galveston Bay. oak, pine, hickory, cedar and cypress and other varieties of timber have heavy growth along the water courses. The Trinity River enters from the north and flows into Galveston Bay. Trinity Bay, a portion of Galveston Bay, indents the county from the south. Anahuac and Wallaceville are without railroad facilities, but are served with regular lines of boats out of Galveston and Houston. Artesian water exists at depths varying from 250 to 900 feet: shallow wells are serviceable at much lesser depths. About 25,000 acres of land are under irrigation for the purpose of growing rice. The rainfall approximates 37 to 40 inches per annum.

The soil is mostly a dark sandy loam and specially adapted to fruit and truck, an industry making rapid progress in all sections where markets are conventent. Large areas are given to the grazing of cattle, but along the hay shore the acreage occupied by rice fields and fruit and truck farms is increased annually. Nearly all bay shore farmers are also owners of sail and power boats and transport their products across the bay to Galveston or to Houston. Truck farming along the rallroad leading to Beaumont occupies the time and attention of most of the inhabitants.

The rice industry in the vicinity of the Trinity River is large, about 35.000 acres being under ditch and 29.650 acres in rice. With the
completion of a bulkhead, lock and dam on the Trinity a much larger acreage will be available for this grain.

Chambers County needs only better transportation facilities to bring about a rapid development of its agricultural resources. Notwithstanding its apparent location out of line of railroads, new settlers are constantly opening up farms and land values are advanoing. A large acreage, however, is available at prices ranging from $\$ 15$ to $\$ 50$ per acre.

## CHEROKFF COUNTY.

Centrally located in East Texas; created in 1846 from Nacogdoches County and organized the same year; named for a tribe of Indians; area' 990 square miles; population 29,038 in 1910, as compared with 25,154 in 1900. Rusk, the county seat. had a population of 1,558 in 1910 and 846 in 1900 . Jacksonville, the chief city of the county, had a population of 2,875 in 1910 and 1,568 in 1900 . Other important towns are Alto, Dialville, Mount Selman, Ponta, Maydelle and Gallatin. It is served by the St . Louis Southwestern, Texas and New Orleans, International and Great Northern and Texas State Railroads.

The general surface is broken, and in some sections the hills approach the dignity of small mountains, one chain extending almost the entire length of the county. Mud Creek flows through the northeast corner, emptying into the Angelina River. East of this creek the country is quite hilly. The Neches River forms the western boundary. The Angelina River forms the eastern boundary for a distance of thirty miles.

Chocolate soils predominate in the upland and stiff black and sandy land in the valleys. The county is well timbered with forests of pine and various hardwoods. Considerable timber has been cut away, but enough remains to furnish material for a number of sawmills and for other purposes. The northern portion is especially suited to truck farming and fruit growing. Jacksonville, Rusk and other towns ship many train loads of peaches and tomatoes to Northern markets annually. The orchard interests of Cherokee County are very valuable. Many thousands of acres are devoted to the growing of peaches, plums and apricots. Truck farming has also attained gigantic proportions. A large acreage is devoted to early tomatoes. A market has been established at Jacksonville and Rusk and growers receive cash returns from delivery of their products. During the shipping season Tacksonville is the Mecca for buyers and the
packing houses give employment to a large number of people.
Although the fruit and truck industry outranks. all other, farmers have not neglected staple crops and large yields of cotton, corn and grains are obtained. The breeding of fine live stock is car. ried on in connection with diversified farming, special attention being given to dairy animals. Large shipments of dairy products arge regularly made. A branch of the State penitentiary is located at Rusk.

The county contains large and valuable deposits of iron. At various times these deposits have been worked and iron smelted and manufactured into pipes and other iron products at the furnaces belonging to the State. A new lease went into effect this year, and it is believed that it will serve to give deserved prominence to East Texas iron ores. Deposits of excellent brown sandstone have also been developed to some extent. Valuable clays are also found in the county.

The rainfall approximates 45 to 48 inches per annum. Although the county is thickly settled in many sections, a large acreage adapted to fruit and truck growing and to diversified farming is available for new settlers. Improved farm lands are quoted at $\$ 10$ to $\$ 50$ per acre; unimproved land from $\$ 5$ to $\$ 10$ per acre.

## CHILDRESS COUNTY.

Situated in the southeast corner of the Panhandle; created in 1876 from the Young Land District and organized in 1887; named for George C. Childress; area 660 square miles; population 9.538 in 1910, as compared with 2,138 in 1900. Childress. the county seat and chief city had a population of 3,318 in 1910 and 682 in 1960. Other important towns are Kirkland and Carey. It is served by the Fort Worth and Denver City Rallroad.
The surface is rolling, with broad valleys along the water courses. It is moderately timbered with hackberry, mesquite and shin oak. The Red River crosses through the center, but the flow is lipht during a portion of the year. The Pease River borders on the south and Buck Creek flows through the northwest portion. The drainage is excellent. An abundant supply of underground water is found at a denth averaging 150 feet. The rainfall approximates 26 inches per annum.

The soll in the eastern part is a dark sandy loam, very productive. The remainder of the land is more or less andy, varying from dark to chocolate in color. Along the river valleys the soil is dark rich sand and moisture can always be
found within a few inches of the surface.

There aie many large pastures and ranches and thcusands of wellbred cattle and horses are grazed and prepared for the market each year. kianchmen, with a few exceptions, cultivate a large acreage in feedstuffs and also make large purchases of farmers during the winter months. In the vicinity of railroad towns farmers occupy the land and cultivate a large acreage, producing wheat, oats and corn, besides alfalfa and all other forage crops. Peaches, apples, plums, berries, melons and vegetables are well adapted to climate and soil, but the acreage thus occupied is comparatively small. Conditions generally favor a rapid development of agriculture, the grearest need being more railroads.

There are large deposits of gypsum and also brick clay, but these have not been developed.

Lands vary in price from $\$ 10$ to \$15 per acre at a distance from the railroad and from $\$ 25$ to $\$ 60$ and above in the more developed sections.

## CLAT COUNTY.

Situated in North Texas, bordering the Red River on the north; created in 1857 from Cooke County and organized in 1873; named for Henry Clay; area 1,250 square miles; population 17,043 in 1910 , as compared with 9,231 in 1900 . Henrietta, the county seat and chief city, had a population of 2,104 in 1910 and 1,614 in 1900. Bellevue, Byers, Petrolia and Halsell are other towns. It is served by the Fort Worth and Denver City, Missouri, Kansas and Texas, Wichita. Valley and Southwestern Railroads.

The surface is generally rolling prairie, with wide and fertile valleys along the Red River, Big and Little Wichita Rivers and other streams. Considerable timber is found along streams and in the southern portion. Good water is found in all sections at an average depth of forty feet. The rainfall averages 27 to 29 inches per annum.

The Red River bottom land is composed of dark sandy soil, while a dark and chocolate loam predominates in the bottom lands of the Big and Little Wichita Rivers. A dark sandy loam, with a heavy clay subsoil, is found on the uplands.

The soil and climate are adapted for fruit and truck growing and diversified farming. Thus far truit growing has not been indulged in on a large scale. A local demand only is supplied. Among the horticultural products of the county that produce considerable revenue are pecans. Pecan trees are found in abundance along the streams.

Cotton, corn, wheat and oats are leading staples. The live stock industry is conducted in connection with farming. Several large ranches are operated in sections at a distance from railroads. The raising of fancy and thoroughbred poultry is receiving the attention of a large number of citizens and poultry products are shipped in large quantities to Texas markets.

A valuable shale and fire clay is found in abundance in the vicinity of Henrietta. Although the supply is almost inexhaustible, but little development has been made. Nine miles north of Henrietta an extensive natural gas field has been developed. Natural gas is piped to Henrietta, to Wichita Falls, Fort Worth, Dallas and intermediate points. The oil fields in this same vicinity have not been fully developed. A very fine oil is produced.

The rainfall of Clay County is well distributed and there is little need for irrigation for general crop purposes; however, the numerous streams, together with the abundance of underground water, make irrigation during drouths an attractive proposition.

A large acreage is on the market and new settlers will find no trouble in securing well located farms. Improved farm lands are quoted from $\$ 25$ to $\$ 60$ per acre; unimproved lands at $\$ 15$ to $\$ 25$ per acre.

## COCHRAN COUNTY.

Situated in the Plains country, with New Mexico on its western border; created in 1876 from Bexar County and is still unorganized; area 957 square miles; population 65 in 1910 and 25 in 1900.

The surface is high and level. Various nutritious grasses are native to this county, which makes it the natural home for cattle. The county is without streams, but a good underground supply of water is found at depths varying from 40 to 200 feet. Many water holes are found, which in rainy seasons supply an abundance of water for stock. The rainfall varies from 16 to 20 inches per annum. Practically all ranchmen have small orchards and a small acreage under cultivation, demonstrating that apples, peaches, plums and grapes can be successfully grown, and that West Texas staple crops can be produced under ordinary conditions. With the coming of railroads the abundant underground water supply will undoubtedly attract farmers, who will take advantage of this great natural resource and develop irrigation along individual plant lines.

COKF COUNTY.
Situated in West Central Texas. created in 1889 from Tom Green County and organized the same
year; named for Richard Coke; area 850 square miles; population 6,412 in 1910 , as compared with 3,430 in 1900. Robert Lee, the county seat, is unincorporated. Other important towns are Bronte,
Fort Chadbourne, Edith, Sanco and Tennyson. It is served by the Kansas City, Mexico and Orient Railroad.

The general surface is rolling, With many hills. The Colorado River flows diagonally across from northwest to southeast. The valley of the Colorado River is level, the soil red loam and very productive. The soil on the plateaus is black waxy: There is sufficient mesquite for fuel. The Concho River crosses the southwest corner. The underground supply of water is reached at a depth averaging 150 feet. The rainfall approximates 23 inches per annum.

Live stock raising is the chief industry of the citizens, but farming is becoming more general. Cotton is the chief money crop. Other West Texas staples are successfully produced. The sandy loam in the northern portion is well adapted to the growth of melons and truck. Conditions along the Colorado River are inviting for irrigation and active interest is being taken in several projects.

Excellent sand and limestone deposits are found, but are undeveloped. Indications of oil and gas are found near Edith. Brick clay is plentiful. Lands vary in price according to location. Improved farms are quoted at $\$ 10$ to $\$ 40$ per acre; unimproved lands at $\$ 5$ to $\$ 20$ per acre.

COLRMAN COUNTY.
Located in West Central Texas: created in 1858 from Travis and Brown Counties and organized in 1854; named for Robert M. Coleman; area 1,302 square miles; population 22,618 , as compared with 10,077 in 1900. Coleman, the county seat, had a population of 3,046 in 1910 and 1,362 in 1900 . Other important towns are Santa Anna, Talpa, Valera, Silver Valley, Novice and Goldsboro. It is served by the Gulf, Colorado and Santa Fe Railroad.

The surface is generally level, With here and there high hills rising abruptly from the level plain. The most noted of these are the Santa Mountains and Fobinson Peak. The soil varies from a black waxy land to a loose sandy loam. In the eastern and northwestern part there is plenty of timber. Which furnishes an abundance of fuel. Pecan trees grow in great profusion on all the streams. The timber area covers possibly onefourth of the county. The Colorado River borders the south and several large creeks furnish an abundance of water and give excellent
drainage. Some irrigation is practiced, approximately 1,000 acres being cultivated by use of water from wells and creeks. The rain fall approximates 28 inches. There is a splendid underground supply of water at depths varying from 50 to 1,250 feet.

The live stock interests are large, much of the area being given over to ranches, where thousands of head of cattle, sheep and goats graze. Near the railroads and convenient to markets much land has been placed under cultivation and good crops of cotton, corn, maize, Kaffir corn and various feedstuffs secured. The dairy industry is not large, but there is no trouble in supplying the local demand. All farmers keep poultry, securing eggs and fryers for home use and for local markets. The keeping of bees is a side line with many, a few citizens making a specialty of this industry. Fruit growing has not attained commercial importance, although many varieties do well.

Valuable deposits of coal are found in the southern part, near the Colorado River. They have been partially developed. An abundance of lime and sandstone of very fine quality is quarried. Brick shale, suitable for all kinds of bricks and of a most excellent quality, exists in abundance. Prospectors have also found oil and gas and some active development work has been done in the Santa Anna field.

With the large increase in population which has come to Coleman County during the last decade a greater interest has been manifested in the development of its great natural resources. The arrival of many nomeseekers has resulted in the cutting up of large ranches into farms and at the present time a large acreage is on the market at prices ranging from $\$ 5$ to $\$ 30$ per acre for unimproved land. Improved farm lands are quoted at $\$ 10$ to $\$ 45$ per acre.

## COLLIN COUNTY.

Situated in North Texas; created in 1846 from Fannin County and organized the same year; named for Collin McKinney; area 828 square miles; population 49,021 in 1910. McKinney, the county seat and chief city, had a population of 4,717 in 1910 and 4,322 in 1900. Other important towns are Farmersville, Plano, Celina, Princeton, Allen, Melissa, Frisco, Prosper, Blue Ridge, Westington and Anna. It is served by the Missouri, Kansas and Texas, Gulf, Colorado and Santa Fe, St. L_ouis Southwestern, St. Louis, San Francisco and Texas, Houston and Texas Central Railroads and the Texas Traction Company, interurban. Other intepurban lines have been surveyed.

The surface is high and rolling, with but few hills or breaks. It is well timbered with oak, elm, hackberry, pecan and bois d'arc. There is sufficient timber ror domestic purposes. Five-sixths of the county is drained by the East Fork of the Trinity River, the remainder being drained by the Elm Fork of the same river. These streams and tributaries have a north and south course. Seven-eighths of the county has a black waxy soil, which is very productive.

The average size of the farms in this section approximates sixty acres. There are but few large pastures left. It is one of the best agricultural sections of Texas. Farming is scientifically conducted. Cotton, wheat, oats, alfalia and various other staples produce abundantly. A large acreage is devoted to the raising of truck and fruit for near-by markets. Special attention is given by a large number of farmers to the raising of fancy live stock, Blooded horses, cattle and sheep are found in every section. The dairying interests are growing more prominent. Poultry breeding is also an important factor in the prosperity of many communities. Near-by markets are supplied and large shipments made to Northern cities. Several fine poultry farms exist and birds are raised for breeding: purposes. The fruit industry has not attained large proportions, but enough is grown to supply the home demand. Many stands of bees are also scattered throughout the county.

Artesian water is found at depths ranging from 500 to 1,200 feet; good well water is found at twenty to eighty feet. The rainfall approximates 36 to 38 inches per annum.

McKinney, the county seat, is a thriving city with many industries, among them being a large cotton mill. Citizens of the city enjoy the various modern public utilities and take pride in beautifying their homes. Practically 95 per cent of the total acreage of the county is in cultivation.

There is a healthy movement in real estate and homeseekers have no trouble in securing locations. Improved farm lands are quoted from $\$ 50$ to $\$ 125$ per acre.

COLIINGSWORTH COUNTY.
Situated in the Panhandle, bordering the State of Oklahoma; created in 1876 from the Young Land District and organized in 1890; named for James Collingsworth; area 900 square miles: population 5,224 in 1910 and 1,233 in 1900. Wellington, the county seat, had a population of 576 in 1910. It is served by the Wichita Falls and Northwestern Railroad. Digitized for FRAHeRsurface is level, with some
rough land along the creeks and rivers. It is drained by the Salt Fork of the Red River and Elm and Buck Creeks. An abundant supply of water is found at an average depth of seventy feet. Rainfall averages approximate 23 inches annually. The soils vary from sandy loam along the streams to very dark loam in the flats. There is considerable deep sand in some sections.

Live stock raising is the chief industry of the people, but of late years thousands of acres have been placed under profitable cultivation. Corn, wheat, oats and alfalfa are geod producers. The production of alfalfa is encouraging the swine industry. Practically two-thirds of the entire area is tillable. Those Who have engaged in farming have found cotton to be a profitable crop. As the soil is loose and easily cultivated, it is claimed that a larger acreage can be handled than in the counties further east. The corn crop is second to cotton in importance. Other staple Panhandle crops are proving profitable. Although peaches, pears, apricots and plums are found in small orchards, no effort has been made to develop the fruit industry.

A large acreage is availabie for new settlers. Improved farm lands are quoted from $\$ 15$ to $\$ 40$ per acre and unimproved lands from $\$ 8$ to $\$ 20$ per acre.

## COLORADO COUNTY.

Situated in the coastal plains. two counties removed from the Gulf of Mexico; one of the original counties, created in 1836 and organized in 1837; named for the Colorado River; area 948 square miles; population 18,897 in 1910 . Columbus, the county seat. is an unincorporated town. Eagle Lake, the chief city, had a population of 1,117 in 1910 and 1,107 in 1900. Weimer, Rock Island, Alleyton, Oakland, Matthews, Fldridge, Mentz and Bernado are other important towns. It is served by the San Antonio and Aransas Pass. Gulf, Colorado and Santa Fe and Galveston. Harrisburg and San Antonjo Railroads.

The surface is mostly level prairie, with a few small hills along streams. It is well timbered with hardwood and has some pine. The Colorado River bisects the county from north to south, and this stream, with its numerous tributaries, furnishes excellent drainage and sufficient water for all purposes. Artesian water has been developed at a depth of from 800 to 1,000 feet; surface water of good quality is found at shallower depths. The rainfall averages 37 inches per annum.

A deep black sandy loam predominates in the river bottoms. There is some light sandy soil, but
as a rule the soil varies from a sandy loam to black waxy and alluvial.

The live stock industry, formerly the chief occupation of the people and still important, nas been driven into the background by the agriculturists, who are producing rice, sugar cane, cotton, corn, potatoes and all kinds of vegetables and fruits. A large acreage of sugar cane is consumed by the mills at Eagle Lake. Some Colorado County cane is shipped to Mills and Wharton Counties. Cotton is an important crop, but the tendency of the average farmer is toward a great variety of crops and a large acreage of truck. Rice is an important crop, the acreage approximating 25,000. All farmers are engaged in producing poultry, which yields a large annual revenue.

Brick clay is found in various parts of the county, but the deposits are undeveloped.

One of the natural resources of the county is found in its excellent water power along the Colorado River. This water power thus far has not been developed, although several schemes looking toward the construction of dams and canals have been advanced and considered.

Homeseekers will find an excellent opportunity of securing good farm lands in Colorado County. A large acreage is available. Improved farm lands are quoted from $\$ 30$ to $\$ 50$ per acre, and some lands are sold at higher prices. Unimproved lands are quoted at $\$ 10$ to $\$ 40$ per acre.

## COMAL COUNTY.

Situated in Southwest Texas, north of San Antonio; created in 1846 from Bexar, Gonzales and Travis Counties and organized the same year; named for the Comal River; area 569 square miles; population 8,434 in 1910 , as against 7,008 in 1900. New Braunfels, the county seat and chief city, had a population of 3,165 in 1910 and 2,097 in 1900 . Other important towns are Bracken and Hunter. It is served by the International and Great Northern and the Missouri, Kansas and Texas Railroads. An electric line under construction from San Antonio to Austin will pass through the county.

The northern and western portions are broken and the surface rises into ranges of hills of considerable elevation. The southeastern portion is level, having some of the best black land farms in the State. The Comal and Guadalupe Rivers furnish an abundance of water. In the hilly sections well and stream water is easily secured. Comal River, rising in I ander's Park, bursts forth from a number of large springs
one mile above New Braunfels and forms a bold stream, which after a winding course of only three miles, flows into the Guadalupe River with a fall from its source of over forty feet. The water power from this stream is utilized to run two flour mills, an oil mill and an electric light and ice plant. It is more or less thickly covered with live oak, post oak, walnut, cedar, pecan, mesquite and elm.

The tillable soils vary from a stiff soil to a mellow loam. A large proportion of the farms are found in the valleys. About onefifth of the county is suitable for culture. About 2,500 acres are cultivated by irrigation. The rainfall approximates 28 inches per annum. Live stock raising is one of the important industries. Diversified farming, which includes the growth of pears, plums and peaches, is proving profitable in that section not too rough for agricultural purposes.

Deposits of limestone and brick clay have been located. The limestone deposits are now being developed.

The citizens are taking an interest in good roads and have constructed about seventy-five miles of public highways at an average cost of about $\$ 1,200$ per mile. New Braunfels, the county seat, is making progress and is the location of a number of prosperous industries, among the most prominent being a hydrate lime factory, a collar factory, two tanneries, flour mills and oil mills.

Improved farm lands are quoted at $\$ 60$ to $\$ 75$ per acre; unimproved farm land at $\$ 40$ to $\$ 50$ per acre.

## COMANCHE COUNTY.

Situated in North Central Texas, southwest of Fort Worth; created in 1856 from Coryell and Bosque Counties and organized the same year; named for a tribe of Indians: area 828 square miles; population 27,186 in 1910 and 23,009 in 1900. Comanche, the county seat, had a population of 2,756 in 1910 and 2,070 in 1900. DeLeon, Proctor, Snipe Springs, Hasse, Gustine, Iampkin, Comyn and Sidney are important towns. It is served by the Fort Worth and Rio Grande (Frisco), Stephenville North and South Texas (Cotton Belt) and Texas Central Railroads. Comanche County under the Mexican Government was included in the Municipality of Viesca, the name of which, after the revolution, was changed to Milam District. In 1850 it was attached to Bell County, and in 1854 to Coryell County until its organization in 1856

The surface is generally rolling, though there are many acres of fine level land. North and South Leon livers cross from northwest to southeast, into which many
small streams empty, furnishing an abundance of water and excellent drainage. An excellent supply of well water is found at depths varying from 20 to 100 feet. The rainfall approximates 30 to 32 inches. The greatest rainfall is during the growing months, making Comanche one of the banner counties of the State in agricultural lines when acreage under cultivation is compared.
The soil in the upper cross timbers, which are found in the southeastern part, is sandy loam. Black waxy land is found at the base of the bluffs and hills. A very fertile black sandy land predominates in the valleys. A deep black soil is found on the upland.
The live stock industry occupies the attention of many of the citizens. Special attention is given to the raising of fine cattle, horses and mules. Dairying is becoming important. Modern methods of cultivation are applied and practically all staple crops are produced in abundance. Cotton is the chief crop and is extensively grown. some attention is given to horticultural matters, but, while the fruit industry is on the increase, it has not attained sufficient size to. make it a commercial factor. Conditions are excellent for the promotion of the poultry industry, and this is becoming an important factor to the farmer.

Coal is found in the northeastern part. There is also an excellent quality of sandstone, which is quarried for local use, A small oil and gas field has been partially developed near Snipe Springs. superior grade of glass sand is of recent discovery, but the deposits have not been developed. The sentiment of the entire people is in favor of good roads.

Small farms are the rule in the county, but there yet remains a large acreage of tillable land available for new settlers. Improved lands are quoted from $\$ 20$ to $\$ 50$ per acre and unimproved from $\$ 15$ to $\$ 30$ per acre.

## CONCHO COUNTY.

Situated near the geographical center of Texas; created in 1858 from Bexar County and organized the following year; named for the Concho River; area 941 square miles; population 6,654 in 1910 and 1,427 in 1900 . Paint Rock, the county seat and chief town of the county, is unincorporaed. Its population is estimated at 650 . Other important towns are Eden. Eola. Millers View, Concho, Pasche and Ruth. It is served by the Fort Worth and Rio Grande (Frisco) and Gulr, Colorado and Santa Fe Railroads.

The surface varies from rough country, with fertile valleys in the southern half, to rolling prai-
rie in the northwest portion, while the northeast portion is somewhut broken, but contains many acres of fertile and tillable land. It is well timbered with mesquite and live oak. Drainage is cared for by the Concho, Kickapoo and Colorado Rivers and the Mustang, Dack and Brady Creeks. Some water power has been developed. Underground water is found at an average depth of fifty feet. About 500 acres are irrigated with water taken from the Colorado River. The rainfall, averaging 27.75 inches per annum, is well distributed.

The soils vary from white sandy to dark rich alluvial. It is very productive and free from wire and erab grass and other weed pests. Live stock, formerly the chief industry, is being rapidly displaced from first honors by the production of cotton, grains, feedstuff's and fruits. Fruit growing, yet in its infancy, is attracting attention and grapes, peaches, plums and pears are successfully raised.

Improved farm lands average in price from $\$ 20$ to $\$ 40$ per acre; unimproved lands from $\$ 10$ to $\$ 25$ per acre. Large ranches are being placed on the market in the shape of small farms and new settlers are rapidly developing the agricultural resources of the county. A large acreage is available for newcomers.

## COOKE COUNTY.

Situated in North Texas on the Red River; ereated in 1848 from Fanning County and organized in 1.849; area 1,000 square miles: named for William G. Cooke; population 26,603 in 1910. Gainesville, the county seat and chief city, was given a population of 7,624 in the last Federal census. Other important towns are Valley View, Windsor, Fair Plains, Marysville, Muenster, Myra, Lindsey, Woodibine and Dexter. The county is served b: the Gulp, Colorado and Santa Fe and the Missouri, Kansas and Texas Railroads.
The surface is largely rolling prairie. Drainage is secured through the Red River, which forms the northern boundary, and Elm, Fish, Clear, Pecan and Sycamore Creeks. Pecan, walnut and various hardwoods grow in abundance along the streams. Other water resources are present in an underground supply at depths varying from thirty-five to fifty feet; in an artesian supply at about 600 to 800 feet and in an annual rainfall of 35 inches.
The soils in the Red River Valley are a red alluvial. There are also large areas of black waxy and gray loams on the uplands and lighter varieties in the cross timbers. All are very fertile.

All conditions favor the develop-
ment of a large and profitable agricultural industry, and although classed as one of the leading counties in the State in agricultural matters, the introduction of better methods of farming is now proving more effectively the possibilities of increasing acre production. Live stock on the farm is one of the leading and most profitable features of the new era. Crop rotation and attention to soil condi-. tions are demonstrating the wonderful productive power of the soils. While cotton maintains its rank as a leading crop, the increasing production of wheat, corn, oats, feedstuffs, including alfalfa, makes cotton growing less risky, marking the county as a section in which diversification is winning.

In the vicinity of the towns and cities fruit and truck growing for local consumption is profitable, but this industry has greater opportunities to flourish on a large scale in the cross-timber section, where the soil is more adapted to the purpose.

Among the mineral resources are large deposits of lime and sandstone, yet undeveloped, and many beds of brick clay, some of which furnish the raw material for a brick plant at Gainesville.

Cooke County stands well toward the front in the matter of attention to public highways. Thus far over 100 miles of paved roadway is in use and more is contemplated.

A large area of the tillable lands are virgin and much of it is available for newcumers. Improved lands may be purchased at prices ranging from $\$ 35$ to $\$ 75$ per acre; unimproved from $\$ 15$ to $\$ 25$ per acre.

## CORYELE COUNTY.

Situated near the center of the State; ereated in 1854 from McLennan County and organized the same year; named for James Coryell: area 1,115 square miles; population 21,703 in 1910 . Gatesville, the county seat and chief city, had a population of $1,920 \mathrm{in}$ 1910. Other important towns are Copperas Cove, Ogleshy, Jonesboro, - Turnersville, Evant. Pearl, Mound, Leon Junction and Levita. It is served by four railroads-the St . Louis Southwestern, Temple and Northwestern, Stephenville North and South and the Gulf, Colorado and Santa Fe .

Coryell County has much prairie land, but its surface is generally high rolling, gradually heading off into the valleys of the several streams. It is well timbered, the leading varieties being Spanish oak, cedar, post oak and pecan. It is crossed by the Leon River and several living creeks. The underground supply of water is abundant, wells averaging from 150 to

250 feet. There is a good natural drainage, but in the river bottoma it has been found necessary to construct levees in order to conserve and reclaim many acres of rich land. The Leon River and Cow House Creek furnish water for the irrigation of nearly 1,000 acres. The rainfall, averaging 33 inches per annum, however, is sufficient for the production of all staple crops in average seasons.
The soll of the bottom lands is a rich black; prairie lands are black. while in the northern portion there is much rich sandy loam.

A large acreage is under cultivation, with cotton the money crop. There is a large production of corn, oats, wheat, alfalfa and millet. The acreage devoted to fruit and truck is increasing annually. Live stock raising is an important feature of farm life, many specializing in blooded cattle, horses and sheep. Dairying is a growing industry and creameries are being established at various points. The growth of the honey industry is one of the features of recent years. The poultry industry is adding thousands of dollars annually to the material prosperity of the inhabitants.
Rich deposits of limestone are found and quarried for building purposes. The citizens of Coryell County indicate their progressiveness by their interest in the public schools and by taking advantage of all public utilities which can be brought into service in rural communities.

## COTTLE COUNTY.

Situated in the southeast part of the Panhandle: created in 1876 from Fannin Gounty and organized in 1892; named for George $W$. Cottle; are ${ }^{9} 956$ sauare miles; population 4.396 in 1910 , as compared with 1.002 in 1900 . Paducah, the county seat and chief city had a population of 1.350 in 1900. The county is served by the Quanah, Acme and Parific: Railroad.

The surface is generally level. It is briken by the breaks of the Pease River on the north and east and by the breaks of the Tongue River on the west. A scrubhy growth of mesquite is the only timber. It is traversed bv the Pease River on the north and east, on the west $k v$ the Tongue River and in the southern portion by the Little Wichita. There is an abundance of water at an average depth of sixty feet. The rainfall annroximates 23 inches per annum.

There are some black lands in the east central part, but sandy loams predominate in other sections. It is yet prominent as a cattle country, tut farmers are invading the pastures and demonstrating the value of the lands in the production of cotton, grains.
'eedstuffs and fruits. Many new ettlers are making purchases of farm lands and developing the agricultural resources. Although the horticultural industry has not been developed, peaches and berries are grown for home consumption: Practically all of the county is tillable.
The county offers many opportunities to homeseekers, and special efforts are being made to bring new settlers into the country. Ranch owners are offering no obstacles to the homeseeker. Many large pastures have been placed on the market in amounts to suit the purchaser. Unimproved lands are offered at $\$ 12$ to $\$ 20$ per acre; im. proved farm lands are quoted at $\$ 20$ to $\$ 35$ per acre.

## CRANE COUNTY.

Situated in West Texas, with the Pecos River as its southwestern boundary; created from Tom Green County in 1887 and is still unorganized; named for William Cary Crane; area 850 square miles; population 331 in 1910 and 51 in 1900. Crane County is essentially a cattle country. The surface is generally high, rolling prairie, richly carpeted with mesquite and sage grasses and other nutritious forage. The soil varies from a light gravel or sandy to a black sandy or chocolate. The valley lands along the Pecos River are very fertile. About 2,000 acres of this land was in crop in 1913. About 7,000 acres are being prepared for irrigation. Very little farming has been practiced in other sections, but it has been demonstrated that under irrigation excellent fruits, melons and staple crops can be grown. An underground supply of water is obtained at a depth aver aging 70 to 200 feet. The rainfall is light, approximating 13 inches per annum.

## CROCKETT COUNTY.

Situated in Southwest Texas; created in 1875 from Bexar County; organized in 1891; named for David Crockett; area 3.004 square miles; population 1,296 in 1910. Ozona, the county seat, is an unincorporated town. There are no railroads in the county.

The surface in the northern portion is level, but slightly rolling, while the southern and western parts are very rough, consisting of high hills, narrow valleys and canyons. The timber is confined to stubby growths of cedar and mesquite. Live oak is the only running stream. Water is found at an average depth of 350 feet. The rainfall will average 10 inches per annum. Crockett County is essentially a stock-raising country. With the exception of a few acres cultivated near ranch houses, there
is no attempt at farming. Lands range in value from $\$ 2$ to $\$ 6$ per acre.

## CROSEY COUNTY.

Situated in the eastern tier of Plains counties; created in 1876 from Bexar County and organized in 1886; named for a Mr. Crosby, who died in the Alamo; area 984 square miles; population 1,765 in 1910 and 788 in 1900 . Crosbyton, the county seat and chief city, had a population of 800 in 1910 . Emma, Estacado, Cone and Lorenza are other towns. The county is served by the Crosbyton South Plains Railroad.

Crosby County is aimost level; the only timber is stunted mesquite. It is well drained by the Yellow House and Blanco Creeks. The underground supply of water is abundant at 190 feet. The rainfall will average 24 inches per annum. The climate (data taken from weather station at Amarillo) shows a mean minimum winter temperiature of 25 and a mean maximum summer temperature of 85 degrees. The soils are a red to a dark sandy loam.

Always the home of large ranches, this section is now developing into a farming region. Large farms are the. rule and usually ranchmen are engaging heavily in the production of feedstuffs for winter use and not a few are cultivating large fields of cotton. Since the construction of the railroad new settlers have arrived and are demonstrating the productive value of the lands by growing cotton, corn, maize, Kaffir corn, alfalfa and small grains. Proper cultivation and methods of conserving moisture are resulting in good average yields even in dry seasons

Like other Plains counties, apples, plums, grapes and peaches thrive when given proper attention.

Lands are variously quoted from $\$ 8$ to $\$ 30$ per acre. Homeseekers will find a welcome.

## CULBEESON COUNTY.

Situated in West Texas, bordering El Paso County on the west and New Mexico on the north; the creation of Culberson County was authorized by a law passed by the Thirty-First Legislature and organized in 1911; area 3.780 square miles. It is served by the Texas and Pacific and the Galveston, Harrisburg and San Antonio Railroads. Another rallroad has been chartered to connect Van Horn with New Mexico points. Van Horn, the county seat, is an important railroad division point on the Texas and Pacific.

The county was named in honor of Senator Charles A. Culberson.

The surface is mountainous in
the south and southwestern parts. with many breaks and canyons through the northern and eastern sections. Guadalupe Peak reaches an altitude of 9,500 feet; other peaks reach 5,000 feet and over. There are also large areas of level land and many fertile valleys.

The rainfall approximates 10 to 12 inches per annum and is nat sufficient for agricultural purposes. An abundant supply of underground water - is obtained in some sections and is used to irrigate small truck patches and orchards. Several plans have been put forward for damming water courses for the purpose of impounding flood waters to be used in irrigation. Engineers have pronounced many of these plans feasible.

There are large deposits of white marble and other valuable stone and many deposits of minerals in the mountainous sections.

## DALLAM COUNTY.

Situated in the extreme northwest corner of the Panhandle, bordering Oklahoma and New Mexico; created in 1876 from Bexar County and organized in 1891; named for James W. Dallam; area 1,463 square miles; population 4,001 in 1910 as against 1,046 in 1900 . Dalhart, the county seat and chief city, had a population of 2,580 in 1910. Texline, Corlena, Terico, Ware, Matlock, Chamberlain, Conlen and Hovey are other important towns. It is served by the Fort Worth and Denver City, the Chicago, Rock Island and Gulf and the Enid, Ochiltree and Western Railroads.

The surface is generally level, broken along the south line by the Fito Blanco Canyon. The soil alternates from a rich brown sandy loam to a hard land known as "tight" land or mesquite land; both have proven fertile. There is no timber. About the only water sources of any importance are the Buffalo Springs near the northern line. The average rainfall approximates 22 inches. The average depth of wells is about 150 feet.

Although live stock raising on ranches maintains its supremacy over all industries, it has been demonstrated that live stock farming is more profitable and that the various lines of agriculture and horticulture can be profitably andertaken. Experiments with all staple Panhandle farm crops have proved successful, including many horticultural products, such as apples, peaches, pears, plums and grapes. Manv farmers are making a specialty of broom corn, growing three-fourths of a ton to a ton per acre. All grain crops, including the usual Panhandle crops of millo malze and Kaffir corn yield abundantly.

Poultry raising has been developed to a considerable extent, but thus far shipments have been limited. Some interest has been manifested in dairying and one creamery is operated at Dalhart.

Dalhart is one of the Panhandle's prosperous towns and is prominent as a railroad town. Many progressive citizens are making an effort to bring experienced farmers into the county, as many agricultural resources may be developed. Lands are quoted from $\$ 8$ to $\$ 15$ per acre.

## DALLAS COUNTY.

Situated in North Texas, east of central; created in 1846 from Robertson and Nacogdoches Counties and organized the same year; named for George M. Dallas; area 900 square milles; population 135.748 in 1910 and 82,726 in 1900 . Dailas, the chief city and county seat, had a population of 92,104 in 1910 and 42,638 in 1900 . It now has a population estimated at 125,000 . Lancaster, Hutchins, Garland, Richardson, Carrollton, Farmers Branch, Wlimer, Cedar Hill, Duncanville, Kleberg and Irving are among the other important towns. It is served by the Gulf, Colorado and Santa Fe, St. Louls Southwestern, Chicago. Rock Island and Gulf, Trinity and Brazos Valley, Missouri, Kansas and Texas; Houston and Texas Central, Texas and New Orleans. Texas and Pacific. International and Great Northern, St. Louis and San Francisco, Texas Traction Company, Northern Texas Traction Company, Southern Traction Company and Eastern Texas Traction Company Railroads. The last four are electric lines. Three additional electric lines have been surveyed.
The surface is mostly level, with rolling prairies in the northwestern portion. Some rough land is found along the courses of streams. In most sections there is sufficient timber for general purposes, but none for manufacturing. The Trin. ity River crosses the county, one branch entering from the west side and flowing east until it reaches Dallas, and another from the north. The general course from Dallas is southeast, crossing the boundary at its southeast corner. This stream, with its many tributaries, furnishes an abundance of water for stock and domestic purposes in ordinary years. Good well water is found at an average depth of 35 feet. Artesian water at depths varying from 700 to 2,600 feet. The rainfall averages 35 inches per annum.

The eastern portion has considerable sandy and sandy loam land; nearly all the remainder lies in the black land belt, which is noted for its great productiveness.

Dallas is one of the leading agricultural countles of the State.
practically 90 per cent of the land is tillable and is in cultivation. The many railroads and most excellent public highways give to the producer splendid transportation facilities and markets are close to the farm. Improved lands are quoted from $\$ 40$ to $\$ 100$ per acre. some tracts are held for much higher prices. Cotton is the leading crop, but diversification is generally practiced and there is a large acreage devoted to corn, oats, forage crops and wheat. Live stock raising on the farm is proving a profitable industry, it belng the rule to raise only well-graded animals. The dairying industry is well developed in all sections, the city of Dallas. with other population centers of the county, furnishing excellent markets for dairy products. The same conditions have influenced many to devote their time to the poultry industry and Dallas County ranks high in the production of chickens and eggs. There are many breeding pens and nearly every variety of chickens are raised for show and breeding purposes.

Dallas is one of the leading counties in the construction of good roads. The county has 400 miles of paved roads and 1,200 miles of well-graded roads. Bonds to the amount of $\$ 1,100,000$ have been issued for road construction.

Dallas, the chief city of the county: is the second city in the State in point of population. Commercially the city ranks first, being the greatest jobbing and distributing center in the Southwest. Dallas also takes first place in population in the State, area considered, as well as first place in manufacturing. It leads as an educational center, there being many schools, colleges and universities located there. It is also the site for the Texas State Fair, the greatest institution of its kind in the United States. The city made a growth of 116 per cent from 1900 to 1910 .

## DAWSON COUNTYY.

Situated on the Plains; created in 1858 from Bexar County and organized in 1905; named for Nicholas Dawson; area 900 square miles; population 2,320 in 1910 and 37 in 1900. Lamesa, the county seat, is an unincorporated town. It is served by the Pecos and Northern Texas Rallroad (Santa Fe).

The survace is generally level and devold of timber and running streams. Drainage is obtained through a number of dry water courses. An excellent supply of water is found at a depth of about 100 feet. The rainfall averages approximately 18 inches. The soils are largely chocolate and sandy loam with clay foundation. Live stock ralsing is the leading occu-
pation. Some attention is given to the growing of staple Panhandle crops, including cotton. A few small orchards in the county have proved proftitable. Lands are quoted from $\$ 12$ to $\$ 15$ per acre.

DEAF SMITH COUNTY.
Located in the Panhandle bordering New Mexico; created in 1876 from Bexar County and organized in 1890; named for Erastus (Deaf) Smith; area 1,477 square miles; population 3,942 in 1910 as against 843 in 1900 . Hereford, the county seat and chief city, had a population of 1,750 in 1910. Other towns are Joel and Dawn. It is served by the Pecos and Northern Texas Railroad (Santa Fe).

Deaf Smith County is level plateau, between 3,000 and 4,000 feet altitude. There is no timber except such as has been set out by citizens. Tierra Blanca and Paloduro Creeks drain the county. The underground supply of water is reached at a depth of 40 to 150 feet: the supply is abundant and is used successfully in irrigation; some 4,200 acres are irrigated from wells and from the Tierra Blanca Creek. The average rainfall per annum approximates 18 inches.
The solls consist largely of red and gray sandy loam with black loam in the bottoms. Live stock raising is the chief occupation, cattle, sheep and hogs being the leading lines, named in order of prominence. Irrigation farming is increasing and with an abundant supply of underground water it is expected that the acreage will increase at a rapid rate within the next few years. Sugar beets, melons, truck, apples, cherries and grapes produce abundantly under irrigation. Wheat. milo maize, Kaffir corn and millet are the staple crops and are produced largely by dry farming methods.

Improved farm lands are quoted at $\$ 15$ to $\$ 20$ per acre; unimproved at $\$ 10$ per acre. Although cattle raising is the chief industry there is a large acreage avallable for settlement.

## DELTA COUNTY.

Situated in Northeast Texas: created in 1870 from Hopkins and Lamar Countles and organized the same year; named for its location between the North and South Forks of the Sulphur River; area 266 square miles: population 14,566 in 1910. Cooper, the county seat and chief city, had a population of 1,513 in 1910. Other important towns are Klondike, Enloe. Pecan Gap. Horton, Lake Creek and Charleston. It is served by the Texas Midland and Gulf, Colorado and Santa Fe Railroads.

The surface is undulating, genprally high, with much level land. There are some rolling lands on
the break of North Sulphur Creek. North Sulphur Creek forms the northern boundary and south Sulphur Creek the southern boundary. There is an abundance of various hardwoods for domestic purposes. Good well water is found at depths varying from 20 to 50 feèt. The ralnfall will average 35 to 40 inches per annum.

The prevailing soil is a black loam. There is some black sandy and gray land. All is exceedingly fertile, ranking with the best of its kind in the South. There is considerable good fruit land, but this industry has not been thoroughly developed. Small shipments of peaches are made and various other fruits are grown for home consumption. Diversified farming is supplemented by the breeding of fine horses, mules and dairy cows. A number of farmers are engaged in the bee and honey industry on a small scale. A large number are paying special attention to the breeding of rine poultry and to the poultry industry in general. Cotton is the money crop. Corn, oats, alfalfa and other staples yield abundantly.

There is a healthy movement in real estate and homeseekers find no difficulty in securing locations. Lands vary in price according to location and improvements. Cultivated lands on which are located the usual farm buildings are quoted from $\$ 80$ to $\$ 100$ per acre; other lands are quoted from $\$ 15$ to $\$ 20$ per acre.

## DENTON COUNTY.

Situated in North Texas, one county removed from the Red River, bordering Dallas and Tarrant Counties on the south; created in 1846 from Fannin County and organized the same year named for John B. Denton; area 865 square miles; population 31,258 in 1910 as compared with 28,318 in 1900. Denton, the county seat and chief city, had a population of 4,732 in 1910 and 4,187 in 1900. Other important towns are Pilot Point, Lewisville, Sanger, Krum, Aubrey and Justin. The county is served by the Texas and Pacific; Missouri, Kansas and Texas; Gulf. Colorado and Santa $F e$ and the St. Louis and San Francisco Railroads.
The surface is gently rolling, about two-thirds being classed as prairie. While much of the soll is black waxy, in many parts of the county there is an admixture of sand and clay. A belt of woodland, known as the Lower CrossTimbers, from 8 to 10 miles wide, extends across the county from north to south. The soils in this timber belt are for the most part a dark sandy loam with a red clay subsoil. It is well watered, having the Elm Fork of the Trinity River Little Elm, Denton, Oliver, Hick-
ory, Clear and Milam Creeks, which provide proper drainage and supply water for stock. Artesian water exists at a depth of 40 to 600 feet and many farmers have provided themselves with artesian wells. A good underground supply of water is fund at depths of 20 to 40 feet. The rainfall approximates 35 inches per annum.

This section of Texas has a diversity of azricultural resources, all of which are in a fair state of development. The variety of soils permits specializing in grains, cotton, fruits and vegetables, conditions being most favorable for diversifying with all field crops, and to live stock farming. There are many fine stock farms on which are raised the best strains of beef and dairy cattle, hogs, sheep, horses and mules. All farmers are stock raisers in some degree, although some confine the greater portion of their attention to wheat and oats or cotton and corn. Convenience to Dallas and Fort Worth has made the poultry industry a leading line with many. Fruits and vegetables are coming more into favor because of the great demand at near-by markets.

Denton, the county seat, is one of the progressive small cities of North Texas. It is the site of the College of Industrial Arts and of the North Texas Normal School. It will soon be connected with Dailas by an electric line.

Lands in this county vary in price from $\$ 30$ to over $\$ 100$ per acre. New settlers find no trouble in securing good lands and locations, as the movement in real estate is generally brisk.

## DeWITT COUNTY.

Situated in Southwest Texas in the coastal plains; created in 1846 from Gonzales, Victoria and Goliad Counties and organized the same year; named for Green DeWitt; population 23,501 in 1910; area 880 square miles. Cuero, the county seat, had a population of 3,109 in 1910. Yoakum, the chief city, had a population of 4,657 the last census. Other important towns are Yorktown, Nordheim, Edgar, Thomaston, Hochhelm and Meyersville.

The surface is rolling and its soil largely a dark sandy loam. About one-half is timbered and parctically all of the area is arable. Along the streams are the richest lands, but all of the county is very productive. Live oak, post oak, ash, hackberry, elm, blackjack, cottonwood and pecan are among the timbers. There is some walnut and a good deal of hickory on the higher lands. The Guadalupe River which flows from north to south, is one of the most picturesque streams in the South. Other streams of living water are the Sandies and Big Brushy Creeks.

Artesian wells are secured at depths which var. from 600 to 1,100 feet. Shallow well water is aboundant. The rainfall will approximate 33 inches per annum.
Truck and fruit farming are among the chief industries. Diversified farming is practiced in all sections. Some suear cane is grown, but in the general farming communities the chief crops are cotton, corn, sorghum and other forage crops. Attention is given to the breeding of fine live stock. Dairy animals are a specialty among some of the farmers in the vicinity of Cuero and a large creamery is operated at this point which consumes the cream of that section. Other creameries ars operated at Yoakum and Yorktown. Both of these places are important towns, Yoakum being a rallrcad town of importance in this section. In the live stock industry the breeding of swine is attracting increasing attention each year.

Figs and peaches are proven fruits and many acres are devoted to strawberries, which find a ready market in near-by cities. Poultry raising is one of the important lines in which farmers are engaged. Poultry packing houses at Cuero and Yoakum handle large consignments. Great droves of turkeys are driven to market each winter.

Cuero is becoming an important Industrial canter for manufacturing purposes, power being secure 1 by damming the Guadalupe River. One of the important industries at Cuero is a cotton mill. Yoakum is an important division station on the San Antonio and Aransas Pass Rallroad. Yorktown is also an important trade center.
Homeseekers will find many ad. vantages and will have no trouble in securing lands of good location at reasonable prices.

## DICKENS COUNTY.

Situated partially in the Plains country, a small portion being true plains; created in 1876 from Bexar County and organized in 1891; Named for J. Dickens; area 918 square miles; population 3,092 in 1910 as compared with 1,151 in 1900. Dickens, the county seat, is an unincorporated town. Spur is the principal town. Tap and Draper are postoffices. The county is served by the Wichitg Valley Rallroad.

The surface is generally rolling with fine valleys along the water courses and level stretches on the upland prairies. Mesquite and cottonwood grow along the streams. It is drained by Duck Creek, Cottonwood, Dockum, Croton and Fied Mud Creeks. An abundant supply of underground water is found in most sections at depths from 70 to 200 feet. The rainfall will average
22.44 inches per annum. The solls vary, red, dark and chocolate sandy loam predominating. Tight lands occur in the central sections. Live stock raising on ranches is the principal occuration of the people. of recent years many settlers have been induced to come to Dickens County and ranch owners have cut up their pastures into farms and placed them upon the market. New settlers have entered actively into the work of developing the agricultural resources. They are successfully growing all West Texas staples. Cotton leads in acreage.

For many years, small orchards and vineyards at various ranch homes have produced bounteously. It has been demonstrated that peaches, grapes, apricots and plums are a success and new settlers are taking an interest in horticultural products.

Ranch owners have taken an interest in improving their grades and the old range animal has almost disappeared from the county, Herefords, shorthorns and other beef cattle having taken their place.

Valuable deposits of magnesia have been discovered, but remain undeveloped. Red and gray sandstone of fine quality are also found.

Spur, the leading city, is the terminus of the Stamford and Northwestern Railroad. The town is little over four years old. Its population approximates 1,000 people. All modern facilities and public utilities have been provided for by the people.

Improved farm lands are quoted at $\$ 15$ to $\$ 35$ per acre; unimproved lands at $\$ 10$ to $\$ 25$ per acre.

## DIMMIT COUNTY.

Situated in Southwest Texas: created in 1858 from Bexar, Webb, Uvalde and Maverick Counties; organized in 1880; named for Philip Dimmit: area 1,164 square miles: population 3,460 in 1910 as compared with 1,106 in 1900. Carrizo Springs is the county seat and chief city. It was incorporated in 1910 with the commission form of government. The thirteenth Federal census Was taken previous to the incorporation. Asherton, Bermuda, Big Wells, Brundage, Detonio, Las Vargas and Catarina are other important towns. It is served by the Crystal City and Uvalde Ratlroad.

The surface is generally level. Small portions are rolling. There are no mountains. It is not generally well supplied with timber. The Nueces River crosses from the northwest toward the southeast. This stream with its numerous tributaries furnishes excellent drainage and an abundance of water for stock and domestic purposes. Artesian water is found at a aepth
approximating 700 feet in nearly every section of the county. Many artesian wells have been completed and are used for irrigation purposes. Some water is taken from the Nueces River. The acreage under irrigation will approximate 6,000 acres. A great deal of interest is being manifested in the development of the underground water supply and the acreage artificially watered is being. rapidly increased. The rainfall approximates 20 to 22 inches per annum.

The soils vary from red sandy loam to black waxy land. Both are extremely fertile and easy of cultivation.

The interest manifested in the development of the underground water supply has almost overshadowed the live stock industry, which is very large and important over a large area not yet claiming attention from the invading homeseekers. There are many thousands of acres yet at inconvenient distances from railroads which are taken up by ranchers in the grazing of cattle. In the artesian belt and other sections where water is easily obtained there is much development in the form of farms and orehards. Fruit and truck growing is the attraction, as conditions particularly favor these lines. The Bermuda onlon crop is by far the most important now grown, but other vegetables are produced in large quantities. Figs. grapes and berries are favored by horticulturalists. Poultry and bees are side lines with many farmers there being atout 2,000 swarms of bees distributed among the citizens.

Lands in the irrigated sections have advanced to over $\$ 150$ in a few instansess, Good lands, however, are on che mirket from $\$ 35$ to $\$ 60$ per acre. Raw lands in the grazing districts are quoted at $\$ 10$ to $\$ 20$ per acre.

## DONLEY COUNTY.

Situated in the Panhandle; created in 1876 from Bexar County and organized in 1882; named for Judge Stockton $P$. Donley; area 878 square miles; population 5,284 in 1910 and 2,756 in 1900. Clarendon, the county seat and chief city, had a population of 1,946 in 1910 . Hedley and Jerico are other important towns. It is served by the Fort Worth and Denver City and the Chicago, Rock Island and Gulf Railroads.

The surface is an elevated plain, which gradually breaks off into small hills, with valleys of varying width between. The soils range from black waxy. chocolate, black sandy and red clay sandy to a special soil known as the Donley County loam. a dark gray soll, which is mellow, deep and always moist. Timber is scarce. There is
an abundance of water throughout the county. Lelia Lake covers 200 acres and always has water in it, being supported by springs. There are more than 1,000 springs. The underground water is found at $a$ depth of 60 feet; the supply is apparently very abundant. While no irrigation is practiced, a test well and pumping plant has been estabilshed near Lelia and it is belleved that the underground supply of Water can be successfully used in the irrigation of a large acreage. The rainfall approximates 24 inches and under ordinary conditions is sufficient for the growth of staple crops.

A special feature of the live stock industry is the feeding of beeves for shipment to market; the breeding of fine cattle, horses, mules and sheep is extensively practiced. Interest in dairying is increasing and the creamery at Clarendon is successfully operated. Diversified farming in the vicinity of the rallroad is a close second to the cattle industry. The planting of cotton increases each year.

Improved farm lands range in price from $\$ 25$ to $\$ 50$ per acre; unimproved lands are quoted at $\$ 6$ to $\$ 20$ per acre. By reason of its underground water supply, good drainage and fertile land, Donley County is attracting a large number of new settlers, who are assisting in the development of its agricultural resources.

## DUNN COUNTY.

Dunn County was created in 1813 out of a portion of Duval County. At the time of the compiling of this section it had not been organized. Its area is 888 square miles. Data and general description is included in the story of Duval County.

DUVAL COUNTY.
Situated in Southwest Texas; created in 1858 from Nueces, Live Oak and Starr Counties and organized in 1876; named for Capt. B. F. Duval, a pioneer and Indian fighter. The original area was 1,887 square miles. In 191349 square miles was taken from Duval to form a portion of Jim Hogg County and 888 square miles to form Dunn County. The population of the original area was 8,964 in 1910. San Diego is the county seat. Hebbronville, formerly in Duval County, is now the county seat of Jim Hogg County.

The description which follows is of the original county.

The county is served by the Texas-Mexican Railroad (Mexican National).

The southeastern one-third is in the Gulf Plain and the remainder rolling and hilly. Mesquite is the principal timber and is sufficient in quantity for domestic purposes. There are no running streams. A
number of creeks traverse the nounty from the northwest to the southwest, but are dry during portions of the year. The underground supply of water is found at a depth of about 200 reet. The rainfall approximates 22 to 24 inches per annum.
It is estimated that about fourfifths of the county is tillable. With the exception of a small tract in the northwestern part the land is adapted to agriculture. The soils vary from a light sandy to a light mesquite soil. Cotton is the leading staple crop. A small acreage of onions and corn is grown. The live stock industry continues to take precedence over all others. It is prominent for its large flocks of goats and herds of cattle and horses. Although conditions are adapted to apiculture, interest in this industry is small.

There is every indication of gas and oil at Pledras Pintas. Prospecting over an area of 200 acres has been conducted, and, although indications are promising, the field has not yet proven to be a commercial success.

EASTLAND COUNTY.
Situated north of central part of State; created in 1858 from Coryell, Bosque and Travis Counties and organized in 1873; named for W. M. Eastland; area 947 square miles; population 23,421 in 1910 as compared with 17,971 in 1900. Eastjand, the county seat, had a population of 855 in 1910 and 596 in 1900. Cisco, the chief city, had a population of 2,410 in 1910 and 1,514 in 1900 . Rising Star, Carbon, Gorman and Ranger are other important towns. It is served by the Texas and Pacific and the Texas Central Railroads.

The surface is varied; part is broken and mountainous, the mountains being generally densely timbered, and in the eastèrn portions presenting alterations of lofty peaks and deep gorges. At the foot of the mountains and hills lie level and rolling valleys covered with mesquite and post oak. The soil in these portions consists principally of black rich loam and black sandy. In other portions are level prairie lands covered with mesquite and carpeted with a luxuriant growth of several varieties of grass. There are large portions of sandy loam lands covered with a thick growth of post oak.
The North and South Leon Rivers flow through the county and, with their tributaries, furnish an abundance of water during most of the year. An abundance of pure water is obtained from springs and wells. Mineral water is found in several places. Underground water is found at depths varying from 12 to 200 feet. The raincall approximates 26 inches per annum.

The lands best adauted to farming are covered with timber. Inese lands are quoted from $\$ 4$ to $\$ 15$ per acre. Improved lands are quoted from $\$ \geqslant 0$ to $\$ 60$ per acre, depending upon location and value of improvements.

An increased acreage of peanuts and other feed crops has increased the number of live stock on farms and large numbers of cattle and hogs are marketed in a finished condition every season. Live stock raising on ranches continues as an important industry, but greatly improved as compared with old conditions, in both class of animals and in methods of handling.

In all sections there is progress in agricultural and horticultural lines. The small-grain crop is generally good. Cotton is grown on nearly every farm and the feedstuffs adapted to this section yield a heavy acre tonnage. Silos are being introduced and the practice of selling the feed crops on the hoof is becoming more general.

Most farmers grow their own fruits. Local markets are also supplied and small express shipments are made in season. Apples. pears, peaches, plums and grapes are well adapted to climatic and soil conditions.

Coal is mined near Cisco and deposits of this mineral exist in several other sections There are also deposits of various brick clays, but development of any considerable size has not been attempted.

## ECTOR COUNTY.

Situated in West Texas; created in 1887 from Tom Green County and organized in 1891; named for Gen. M. Ector; area' 976 square miles; population 1.178 in 1910 as against 381 in 1900 . Odessa, the county seat, is unincorporated. The county is served by the Texas and Pacific Railroad.

The surface is level and practically devoid of timber, It is also without streams. The solls consist chiefly of sandy loam and during most of the year are covered with nutritious native grasses, which give to Ector County a reputation for being one of the best live stock counties in the State. Farming is carried on in a small way and under dry farming methods some success is attained. The average rainfall approximates 20 inches. Lands are quoted at $\$ 10$ to $\$ 15$ per acre Many new settlers have arrived in the county during the past few years.

## EDWARDS COUNTTY.

Situated in Southwest Texas, one county removed from the Rio Grande; created in 1858 from Bexar County and organized in 1881 and named for Hayden Edwards. At the time of the census in 1910 its area was 2,408 square miles. In

1913 Real County was created, taking from Edwards 471 square miles, leaving 1,387 . With its old area the population was 3,768 in 1910. Rock Springs, the county seat, is unincorporated. There are no railroads.
The northwest portion is rolling.

- the southern half is mountainous and embraces the head tributaries of the Nueces River. Wide, rich valleys are found between the hills and mountains in this section. The timber is principally scrub, with some red cedar. Many pecan trees are found along the streams in the 'southeastern portion. Water is obtained from the East and West Nueces and the South Llano Rivers for irrigation purposes, some 500 acres being cultivated. The northern portion has considerable black, sticky soil, but many stretches of rock ground. It is devoted principally to grazing purposes. Farming is practiced on a limited scale in the noritiern part and more generally in the valleys in the southern part.

Live stock raising is the principal industry, especial attention being to the raising of goats, Edwards County holding first place among the counties in the number of goats and the value of its wool clip. The surface is particularly adapted to goat and sheep raising.

In the hills and mountains valuable deposits of silver, iron, sulphur, coal and kaolin have been discovered, but lack of transportation has prevented their development. There are also traces of oll and gas.

The rainfall approximates 18 inches annually. Underground water is found at depths of 150 to 200 feet. A large acreage in Edwards County is open for settlement. Improved lands in the agricultural district are quoted at $\$ 10$ to $\$ 20$ per acre; other land at $\$ 1.50$ to $\$ 5$ per acre.

## ELLIS COUNTYY.

Situated in North Central Texas; created in 1849 from Navarro County and organized in 1850; named for Richard Ellis; area 1,066 square miles; population 5,629 in 1910 as compared with 50,059 in 1900 . Waxahachie, the county seat and chief city, had a population of 6,205 in 1910 and 4,215 in 1900 . Ennis. another important city, had a population of 5,669 in 1910 and 4,919 in 1900. Italy, Midlothian, Ferris, Palmer and Milford are other towns. It is served by the Houston and Texas Centrai, Texas Midland, Trinity and Brazos Valley; Missourt, Kansas and Texas; Gulf. Colorado and Santa Fe; International and Great Northern and the Dallas Southern Traction Company Railroads.

The surface is generally level to rolling and devoid of timber except
along streams, where the growth is sufficient for domestic purposes It is drained by numerous creek. which flow throughout the year, providing stock water. Surface wells are secured at depths varying from 18 to 30 feet and artesian water at 500 to 1,000 feet. The rainfall approximates 35 inches per annum.

Ninety-five per cent of the area is tillable and 85 per cent is in cultivation, the remainder being devoted to pastures. As an agricul. tural county it ranks with the best in the State, holding first place ir the United States in the production of cotton. Live stock farming is a prosperous industry on farms occupied by owners, although every farmer grows cotton and frequently fails to produce a sufficient amount of feedstuffs for winter use on that account. Notwithstanding the attraction of cotton growing, a giviter acreage is being given ovet io other crops, and corn, alfalfa, oats and other grains and feedstuffs are produced with profit. All crops suitable to this latitude and black waxy and black loam soils yield heavily. With the increasing interest in the breeding of fine horses, hogs and cattle there is a greater demand for cropa other than cotton.
Fruits and vegetables find a ready market and are grown extensively near towns and cities. No effort, however, has ever been made to make a specialty in this line and outside shipments are comparatively small.

Ellis is one of the pioneer good roads counties and up to date has expended approximately $\$ 1,000,000$ in the construction of permanent highways. These roads have added much to the value of lands, which are quoted from $\$ 75$ to $\$ 125$ per acre. There are some cheaper lands, but none for colonization purposes. Homeseekers will not find themselves unwelcome on that account, as there is a tendency to reduce the size of farms, which provides many opportunities for new-comers.

## EL PASO COUNTY.

Situated in the extreme western part of Texas; it is bounded on the south by the Republic of Mexico and on the north and west by New Mexico. It derives its name from The Pass; created in Bexar County in 1850 and organized in 1871 ; area 5,573 square miles: population 52,599 in 1910 and 24,886 in 1900. By legislative act of the ThirtyFirst Legislature Culberson County was created from a portion of El Paso County. The area. of El Paso County was considerably reduced by the creation of this new county. El Paso. the county seat and chief city, had a population of 39,279 in 1910 and 15,906 in 1900 . It is served
by the Galveston, Harrisburg and San Antonio; Texas and Pacific, El Paso and Southwestern; Atchison, Topeka and Santa Fe and Mexican Central lines, which enter Juarez, across the river from El Paso. An electric line of 12 miles connects the city with Ysleta.
The surface is mountainous and broken by many canyons and valleys. There is much level land, which is covered with nutritious grasses most of the year. In the vicinity of El Paso, along the Rio Grande, about 15,000 acres are in cultivation by irrigation methods. With the completion of the Elephant Butte dam, a Government project, now under way in New Mexico. sufficient water will be obtained to irrigate 50,000 acres. Irrigation was practiced in the vicinity of El Paso as early as the sixteenth century. Traces of canals. constructed and used by civilized tribes of Indians or some prehistoric race previous to the arrival of the first Spanish missionaries, are numerous. Some of these canals are in use today.

The western portion is given over to stock raising. With the exception of irrigation farming and the industries centering in the city of El Paso, stock raising is the chief industry. Population is very sparse outside of El Paso and the towns along the railroads.

In the irrigated districts some of the finest grapes grown in the United States are produced. There are also large orchards of peaches, pears, plums and apricots. The dairying industry in this section is also very prominent and some of the model dairies of the country are found here.

In the mountains are found large and valuable deposits of marble and granite. Copper and silver are found in the Quitman Mountains. Lead and zinc have been discovered in the mountains near el Paso. There are also traces of Iron and gold and deposits of coal in several places. While mining is one of the leading occupations, the mineral resources of this section have never been fully developed.

El Paso has an altitude of 3,762 feet. Many of the mountain peaks reach altitudes of 4,000 to 7,000 feet.

The rainfall at El Paso averages 9.16 inches per annum. The climate is high and dry and the city is noted as a health resort. El Paso is the most important Texas-Mexican border city. It is situated across the Rio Grande from Juarez, one of the important Mexican border cities, and enjoys a large international trade. It is a large railroad center and derives considerable revenue from that source. Large smelters are among the important industries and immense quantitles of ore from Mexico, New

Mexico, Arizona and Texas are handled in this eity. There are also many other industries. The city is also prominent as a wholesale and market center for an immense area of country. It has made rapid growth and is one of the leading cities of the State in the development of civic improvement ideas.

ERATH COUNTY.
Situated in Central Texas; created in 1865 from Coryell and Bosque Counties and organized the same year; named for George $P$. Erath; area 1,110 square miles; population 32,095 in 1910 as against 29.966 in 1900 . Stephenville, the county seat, had a population of 2.561 in 1910 and 1.902 in 1900. Dublin, a city ranking in importance and size with the county seat, Thurber, Bluffdale and Alexander are other important towns. It is served by the Fort Worth and Rio Grande (Frisco), Texas Central and Stephenville North and South Rallroads. The Stephenville North and South Railroad is now owned by the St. Louis Southwestern. The Texas Motor Way has its southern terminus at Duffau.
The surface is partly level post oak and prairie land, with the northern portion broken by hills of considerable altitude. On the eastern side there is a range of low rocky hills. Post oak, pecan and other timber is found in sufficlent quantity for domestic purposes. It recelves its drainage through the Bosque and Paluxy Rivers and Richardson. Sycamore, Armstrong and Bartons Creeks. These streams furnish a regular and abundant supply of stock water, while artesian wells ranging in depth from 135 to 200 feet and shallow wells furnish water for domestic purposes.

The soils vary from sandy loam to black and tight land and gray land. Portions of the county are underlatid with a rich subsoil of red oxide of iron, which is particulary adapted to fruits. Some deep black waxy land is found on the prairies. Practically two-thirds of the area is tillable. The rainfall approximates 27 inches per annum.

The live stock industry is gradu: ally giving way to diversified farming, although it continues to be of considerable importance. Farmers are devoting attention to the breeding of fine horses, beef cattle, hogs and dairy animals. Farmers and others are beginning to realize the importance of the poultry business and this industry is making rapid growth.

Large and valuable deposits of coal are found in the northern portion and are extensively mined at Thurber. Limestone and sandstone deposits are also being developed. In the northern partion are found
large deposits of brick clay and large quantities of paving brick are manufactured at Thurber.

A special tax of $15 c$ is levied fo: the construction of good roads and the public highways are gradually being improved. The natural resources are being rapidly developed. Lands, improved and unimproved, are quoted at $\$ 15$ to $\$ 50$ per acre. A large acreage is available for new settlers.

## FALLS COUNTY.

Situated in the central part of the State; created in 1850 from Milam and Limestone Counties and organized the same year; named for falls in the Brazos River; area 844 square miles; population 35,649 in 1910 as against 33,342 in 1900 . Marlin, the county seat and chief city, had a population of 3,378 in 1910 and 3,092 in 1900. Other important towns are Rosebud, Lott, Chilton, Travis and Reagan. It is served by the International and Great Northern, Houston and Texas Central, San Antonio and Aransas Pass and Missouri, Kansas and Texas Railroads.

The surface is level or gently undulating with but few small hills. It is well timbered with oak, ash, elm, hackberry, pecan, cedar; cottonwood and mesquite. The lumber industry, in hardwood lines, is important. It is well drained by. the Brazos, Little Brazos and Old Rivers and Big Sandy, Deer and Lake Creeks. There is an abundance of water found at depths of 20 to 30 feet. Some attention has been given to the proposition of reclaiming overflow lands, but no action taken. The average rainfall approximates 38 inches.

The soils are black waxy on the uplands and gray sandy and free soll in the timber portions. The bottom lands are deep alluvial and very fertile. Diversified farming is practiced extensively and all staple crops of Central Texas produce in large quantities. Cotton is the leading crop. A large acreage of alfalfa is also produced.

Live stock ralsing is conducted along scientific lines. The number raised has been reduced, but the grade of stock has been greatly improved. Increased attention is being given to swine and many large shipments of high-grade porkers are made each year.

Peaches, pears, apricots and figs are proven horticultural products. Considerable attention is also given to the bee and honey industry. A general interest is manifested in the production of poultry.

Improved farm lands are quoted at $\$ 30$ to $\$ 75$ per acre and unimproved land at $\$ 10$ to $\$ 25$ per acre. Falls County citizens are taking a lively interest in sood roads, 50 miles of surface highway having heen constructed at a cost of $\$ 1,250$
per mile. One hundred thousand dollars in bond issues has been expended for road and bridge work. A number of precincts are advocat: ing bond issues for the construction of improved public highways. Marlin, the county seat, is a noted health resort, due to its hot wells.

## FANNIN COUNTY,

Situated in North Texas, bordering the Red River; created in 1837 from Red River County and organized the following year; named for James W. Fannin; area 940 square miles; population 44.801 in 1910 . Bonham, the county seat, had a population of 4,844 in 1910 . Other important towns are Honey Grove, Ladonia, Leonard, Trenton, Dodd City, Savoy and Ravenna. It is served by the Texas and Pacific; Missouri, Kansas and Texas; St: Louis Southwestern and Gulf, Colorado and Santa $F e$ Railroads.

The general surface is high and rolling, with about one-third originally covered with timber. The southern half is black waxy and very fertile and well adapted to small grains, corn, cotton, alfalfa and other forage crops. The northern half consists largely of gray loam or sandy soil on which cotton, corn, fruits and vegetables grow luxuriantly.

Fannin County fronts a distance of 50 miles on Red River and the land for an average distance of 10 miles south of the river is for the most part a reddish brown alluvial. very rich and productive. Probably four-fifths of the land in the county is susceptible of profitable cultivation. Diversified farming is generally practiced and a large acreage is devoted to staples, vegetables, potatoes, tomatoes, peanuts and fruits. In the northern loamy and alluvial solls peaches, apples, pears and plums are grown com: mercially to a considerable extent. as are also strawberries and black:berries. The annual shipments of berries from this section are sald to be worth $\$ 10,000$ to the growers. The principal commercial product of the county is cotton. Practically all of the black land is inclosed either as cultivated fields or hav meadows and pastures. There is considerable timber land in the northern portion and various hardwoods are plentiful.

The county has excellent drainage and an abundance of water for all purposes. Artesian water is found at depths varying from 350 to 1,150 feet. The ruinfall approximates 35 to 37 inches per annum. The agricultural lands of the county are generally well occupied.

The raising of fine live stock is conducted in connection with diversified farming.
Good farm lands are always on the market and homeseekers have no difficulty in finding locations.

Improved lands are variously quoted at $\$ 20$ to $\$ 75$ per acre; unimproved lands et $\$ 10$ to $\$ 50$ per acre.

## RAYETTRE COUNTY.

Situated in South Central Texas: created in 1837 from Colorado and Bastrop Countles and organized the following year; named for Gen. Lafayette; area 992 square miles; population 29,796 in 1910 . La Grange, the county seat and chief city, had a population of 1,850 in 1910. Other important towns are Schulenberg, Flatonia, Fayetteville. Carmine, Ledbetter, Winchester and Ellinger. The county is served by the Missouri, Kansas and Texas; Galveston, Harrisburg and San Antonlo, San Antonio and Aransas Pass and Houston and Texas Central Railroads.

About one-half of the area is rolling prairie, traversed by small creeks and branches, the other half is timbered land and rich bottom land adjacent to the river. The soils of the prairies are divided between black loam and a black 11 me land, and in the bottoms between chocolate loam, sandy loam and a stiff black waxy land; timbered lands are gray sandy with some gravel. The timber of the uplands is composed principally of post oak and blackjack of smali size. Pecan, burr oak, pin oak, white oak, elm, cedar, pine, hackberry, cottonwood, willow and sycamore grow in the bottoms. The Colorado River, Navidad River and numerous creeks drain the county and furnish an abundance of water for all purposes. Springs are numerous and wells of good water are found at depths of 20 to 60 feet. The rainfall averages 35 inches.

Stock farming is an important industry in connection with diversified farming. The breeding of fine live stock has been found to be profitable. Many acres are devoted to cotton, corn, all forms of truck, blackeyed peas and fruit. Pears, plums, figs and berries are grown in quantitles sufficient for home consumption. In connection with the farming industry many are devoting their attention to the raising of line dairy cattle and dairy products form one of the chief commodities marketed. Several creameries are in active operation, all doing a large business. Practically every farmer gives some time to the poultry industry while a number make a specialty of it. Poultry products are shipped to market in car load lots.
There are deposits of lignite and valuable clays.

The county is well settled, but there is an active movement in real estate and many large farms are being divided, making room for additional farmers. Improved farm
lands are quoted at $\$ 40$ to $\$ 100$ per acre and unimproved lands at $\$ 20$ to $\$ 60$ per acre.

## FISHER COUNTY.

Situated in Central West Texas. directly west of Dallas and Fort Worth; created in 1876 from Bexar County and organized in 1886: named for S. Rhodes Fisher; area 836 square miles; popuiation 12.596 in 1910 as against 3,708 in 1900. Roby, the county seat, is an unincorporated town with an estimated population of 1,000 . Rotan, the chief city, has a population of 1,126 . McCauley, Sylvester, Royston, Bernecker and Gongsworth are other towns. It is served by the Kansas City, Mexico and Orient; Estacado and Gulf, Texas Central, Texas and Pacific and the Gulf, Colorado and Santa Fe Railroads.

The surface is partly rolling and partly level, with a few mountains in the northwestern portion. Mesquite is the only timber of importance. It is drained by Double Mountaln and Clear Forks of the Brazos River. These streams, with their tributaries, furnish an abundance of stock water. The underground supply of water is found at depths varying from 20 to 250 feet. The rainfall approximates 25 inches per annum.

The uplands are composed mostly of red sandy soil, very productive: bottom lands contain some alluviai and sandy loam. There are many large ranches, the owners of which cultivate many acres of feedstuffs. In some sections, particularly at convenient distances from railroad points, live stock farming is becoming more the rule. A large acreage is cultivated, cotton, corn, peanuts, maize, sorghum, Kaffir corn, vegetables and frutts all proving well adapted to conditions of cilmate and soll. With better transportation facilities greater progress in agricultural lines can be expected.

Gypsum is found in large quantities and is utilized in the manufacture of cement plaster. Valuable deposits of excellent sandstone have been located, but are not developed.

Owners of large tracts of land have joined the procession of progressives and great pastures are being cut up into farms and placed on the market. Lands are quoted at $\$ 15$ to $\$ 25$ per acre. Many settlers are arriving and there is room for many more.

## FLOYD COUNTIT.

Situated in the Texas Plains; created in 1876 from Bexar County and organized in 1890; named for D. Floyd; area 1,036 square miles; population 4,638 in 1910 and 2,020 in 1900. Floydada, the county seat, had a population of 664 in 1910.

Lockney is another important town. The county is served by the Pecos and Northern Texas (Santa Fe) Railroad.

The surface is slightly rolling, with occasional depressions or basing, some of which hold water the entire year. It is entirely without timber resources, with the exception of trees which have been set out by citizens. Blanco Canyon, commonly known as the North Fork of the Brazos River, runs through the southern part. Qultaque Creek, which flows through the northern part, is a live stream and adds to the water resources. Good well water is found at depths varying from 40 to 250 feet. The rainfall averages $231 / 2$ inches per annum.

Sandy loam is the prevailing soll. It is easily cultivated and very productive. Stock raising is the leading industry, but many farms are being opened and successifully operated. The usual Panhandle staples, consisting of wheat, Kaffir corn, milo maize, cotton, oats, millet and various kinds of forage crops do exceedingly well. Apples, peaches and plums are proven fruits, and interest is manifested in the development of orchards and in the setting out of vineyards. The live stock industry has been placed upon a better basis by the introduction of blooded and wellgraded animals. Nearly all farmers are interested more or less in the production of poultry.

Floyd County owns its own road machinery and animals, and the roads are kept in first-class condition. In keeping with the progress of all other sections of the Panhandle and Plains country, special efforts are made to secure new settlers A large acreage of good farm lands is unoccupied and available for homeseekers at prices ranging from $\$ 10$ to $\$ 25$ per acre.

## FOARD COUNTY.

Situated in the Lower Panhandle; created in 1891 from Fiardeman. King, Cottle and Knox Counties and organized the same year; named for Robert L. Foard: area 636 square miles; population 5.726 in 1910 and 1,568 in 1900. Crowell, the county seat and chief city, had a population of 1,341 in 1910 . Other important towns are Foard City, Thalia, Rayland and Margarete. It is served by the Kansas City, Mexico and Orient Railiroad. A survey was made for a railroad from Vernon to Crowell. Actual construction work has not started.

About four-fifths of the area is level, the remainder rolling and slightly broken. One-third of the prairie land is sandy soil, the remainder of a clay and loam character, both soils beling very productive. Sufficient mesquite for do-
mestic purposes is found in various parts. Good Creek takes a course from northeast to southwest across the western part. Canal, Mule and Raggedy Creeks flow through the northern part. Beaver Creek runs from west to east, its banks being lined with a heavy growth of hackberry and elm. The Pease River forms the northern and the North Wichita River the southern boundary. Underground water is found in abundance at an average depth of 25 feet. The rainfall approximates 24 inches per annum.

A number of large ranches are operated, but the live stock industry has undergone many changes in recent years, and today the majority of stock, both on farms and ranches, is well bred. Diversified farming is making rapid progress and is generally practiced in sections of the country within reason. able distance of the rallroads. Cotton is the money crop. Wheat is one of the leading staples. Grains of various kinds, including milo maize, are successfully grown on a large acreage. About one-third of the tillable soll is said to be under cultivation. Considerable interest is manifested in experimental work of growing peaches, plums and grapes. Success has attended the efforts of those interested in horticultural matters, and many orchards are being set. Copper and sllver have been found in small quantities. The roads of the county are naturally good, the majority of them being well graded. A special tax of 20 c per $\$ 100$ is used for highway improvement.

Homeseekers find no difficulty in purchasing desirable acreage in amounts to suit. Improved lands are quoted at $\$ 25$ to $\$ 35$ per acre; unimproved from $\$ 15$ to $\$ 20$.

## FORT BEND COUNTY.

Situated in the Coast country: created in 1837 from Austin County; and organized the same year; named for Fort on the Brazos River; area 897 square miles; population 18,168 in 1910 as compared with 16,538 in 1900. Richmond, the county seat and chier city, had a population of 1,371 in 1910. Other important towns are Rosenburg, Fulshear, Sugarland, Missouri Clity, Thompson, Neediville, Beasley and Orchard. It is served by the Galveston, Harrisburg and San Antonio; Gulf, Colorado and Santa Fe, San Antonio and Aransas Pass;' Missouri, Kansas and Texas, International and Great Northern; New York, Texas and Mexican and Sugarland Railroads.

The surface is level, about threefourths being prairie and the remainder timbered lands. The timber has a heavy growth in the bottoms of the Brazos River, consisting of ash, live oak, pecan, hack: berry and cottonwood, which furo
nish raw material for a number of hardwood sawmills. The Brazos River flows through the center from the northwest to the southeast; Benard and Oyster Creeks are tributaries of this river. An abundant supply of well water is found at an average depth of 30 feet. The rainfall average 47 inches per annum. There is a large area of rich bottom land subject to overflow and reclamation work by the construction of levees is a great necessity. Some 5,437 acres, however, are under irrigation for the growing of rice.

The soils in the Brazos bottoms are alluvial deposits; the solls of the prairie lands are black hog wallow and some sandy loam. All are very fertile and produce maximum crops in ordinary years. The live stock industry has been important in this county, but diversified farming and rice growing have crowded it into second place. Cotton, corn, sugar cane and rice are leading crops. Figs, peaches and pears are grown for nome consumption. Considerable interest is being manifested in the citrus fruit industry.
In connection with diversified farming there is an increasing interest in improving breeds of live stock and the raising of dairy cattle. Creameries are operated at Richmond and Rosenburg. The poultry industry produces a large revenue anuually.

A gas well has been developed near Thompson, which furnishes light and fuel for that town. No other wells have been developed in that vicinity. A brick plant is operated at Rosenburg. A pottery plant and tile factory are also successfully conducted in the city. Fort Bend County has issued $\$ 255,000$ in bonds for the purpose of constructing good roads.

Within the last few years many homeseekers have purcnased fort Bend County land. A large acreage is yet available for new settlers Unimproved lands are quoted at $\$ 20$ to $\$ 40$ per acre; improved lends at $\$ 35$ to $\$ 50$ per acre, and in exceptional case a much higher price is asked.

## FRANKLIN COUNTY.

Situated in northeast Texas; created in 1875 from Titus County and organized the same year; named for Judge B. C. Franklin; area 325 square miles; population 9,331 in 1910 as against 8,674 in 1900 . Mount Vernon, the county seat, is unincorporated. Cookville, Wingileld, Monticello and Bly are other important towns. It is served by the St. Louis Southwestern and the Missouri, Kansas and Texas Railrogds.

The surface is mostly level. There is some broken territory in both southern and northern parts.

Practically the entire county is covered with a heavy growth of hardwood and pine. The hardwood lumber industry employs many men. There is an abundant supply of water, the county being traversed by the Sulphur, White Oak, Cypress and Blg Creeks and other streams. The underground supply of water is reached at a shallow depth. The rainiall approximates 40 inches per annum.

There is every variety of soll from light sandy in the south to black waxy on the Sulphur Fork of the Red River. The county is especially adapted to diversified farming and fruit growing. All staple crops produce heavily, while iruit and truck of all East Tevas varieties are grown in large acreage. Many car loads of peaches, potatoes, tomatoes and melons are annually shipped from local markets.

Farmers are displaying much interest in the breeding of fine horses, cattle and hogs. The heavy production of forage crops encourages the live stock industry.

Improved lands sell from $\$ 12$ to \$30 per acre; unimproved lands are quoted at $\$ 4$ to $\$ 10$ per acre. Cutover lands are being occupled by fruit and truck growers. However, a large acreage is still available for new settlers

## FREESTONE COUNTY.

Situated in East Centraj Texas; created in 1850 from Limestone County and organized in 1851; named for freestone rock which is found in all sections of the county; area 947 square miles; population 20,557 in 1910 and 18.910 in 1900. Fairfield, the county seat. is an unincorporated town. Teague, the chief city, had a population of 3,288 in 1910; it was unincorporated in 1900. Wortham and Kirvin are other important towns. It is served by the Trinity and Brazos Valley; Houston and Texas Central and International and Great Northern Rallroads.

The eastern and southern parts are moderately rolling, while the remainder is comparatively level, with sufficient inclination toward the streams to afford drainage. About one-fifth is prairie and the balance is timbered except where cleared for cultivation. The soll on the prairies is principaily a dark loam, easily cultivated and productive. Some black waxy soll is found in the northern part. The soil in the creek and river bottoms is mostly sandy, chocolate and dark loam. There is an abundance of hardwood for all purposes. Tho Trinity River forms its eastern boundary. Its tributaries, Tehuacana, Richland, Keechi, Buffalo and Brown Creeks and several smaller streams, furnish an abundance of water for all purposes. There are
many springs, and wells are obtained at an average depth of 50 feet. The rainfall epproximates 35 to 40 inches per annum.

This section is well adapated to the various lines of agriculture, horticulture and live stock. Large areas are in cultivation, cotton, corn, peanuts, oats and general forage crops being staple crops. The ease with which feedstuffs are produced has encouraged live stock on the farm and this in turn has provided the opportunity for soil bullding, and many are taking advantage of it. Peaches, plums, summer apples and berries are grown for home consumption. Some small shipments to outside markets are made, but as a general rule the citizens have failed to develop either the fruit or vegetable industries to a point of great commercial importance.

Among the many natural resources are splendid deposits of gray and blue granite, soft sandstone, brick and fire clay.

A large acreage is constantly on the market, and although the construction of good highways has greatly increased immigration, newcomers can readily find good locations and land ranging in price from $\$ 10$ to $\$ 25$ per acre.

## FRIO COUNTY.

Located in Southwest Texas; created in 1858 from Bexar, Atascosa and Uvalde Counties and organized in 1871; named for the Frio River; area 1,064 square miles; population 8,895 in 1910 as against 4,200 in 1900. Pearsall, the county seat and chief city, had a population of 1,799 in 1910. Dilly and Moore are other towns. It is served by the International and Great Northern Rallroads.

The surface is rolling. The only timber found is mesquite. It is drained by the Frio, Leona and San Miguel Rivers. The underground supply of water is reached at a shallow depth; artesian water is secured at a depth of 1,400 feet. About 2,000 acres are under irrigation, the water being supplied by six artesian wells and two pumping stations. The average rafnfall is about 25 inches per annum.

The soils are mostly sandy loam. Live stock raising is the leading occupation; truck and diversified farming are followed extensively in the vicinity of the rallroad. Cot. ton is the chief crop. Onions and melons are ralsed on irrigated farms. The bee and honey indus. try is assuming great importance. There are 3,225 colonies of bees in the county, which average about 75 pounds of honey each. A large acreage is available for settlers.

Improved farm lands are quoted at $\$ 20$ to $\$ 50$ per acre; unimproved lands at $\$ 15$ to $\$ 80$ per acre.

## GAINES COUNTY.

Situated in West Texas, south of the Staked Plains; created in 1878 from Bexar County and organized in 1905; named for James Gaines: area 1,590 square miles; population 1,255 in 1910 as against 55 in 1900. Seminole, the county seat, is an unincorporated town. There are no rallroads.
The surface is rolling, but is traversed by several draws. There is no timber. An abundant supply of underground water is found at an average depth of 50 feet. Recently this supply has been drawn from in an experimental way for the purpose of irrigation and 100 acres have been placed under cultivation by this means. It is believed that the supply of water is almost inexhaustible and that individual irrigation plants will become numerous. The rainfall approximates 16 to 18 inches annually. The solls consist manly of upland sandy loam.

At the present time live stock raising is the chief industry. Many kinds of nutritious grasses grow luxuriously and the county is recognized as one of the best live stock sections in Texas. However, the development of the under: ground supply of water has excited much interest and the fruit and truck farming industry is expected to become important. Corn, millo maize, Kaffir corn, sorghum and other staple Panhandle crops do well under dry farming methods. Many small orchards of peaches, plums, apricots and grapes have been set out.

Improved farm lands are quoted at $\$ 15$ to $\$ 20$ per acre and unimproved at $\$ 5$ to $\$ 8$. Only about 5 per cent of the tillable land is under cultivation.

## GALVESTON COUNTY.

Situated on the Gulf coast, elghty miles southwest of the Louisiana border; created in 1888 from Brazoria and Liberty Counties and organized in 1839; named for Count de Galvez; area 438 square miles: population 44,479 in 1910 and $44,-$ $116 \operatorname{in} 1900$. Galveston, the county seat and chief city of the county, had a population of 36,981 in 1910 . Other important towns are Texas City, Port Bolivar, Dickinson. League City, Lamarque, Algoa, Arcadia, Hitchcock and Friendswood. It is served by the Gaiveston, Harrisburg and San Antonio, Galveston, Houston and Henderson, Gulf, Colorado and Santa Fe, International and Great Northern, Missouri, Kansas and Texas, Trinity and Brazos Valley, St. Louis, Brownsville and Mexico, Gulf and Interstate (Santa Fe system), Galveston and Western. GalvestonHouston Interurban and the Frisco Eystem Railiroads. Many of these

Lines have joint trackage arrangements into Galveston.
The surface is level, having a gentle slope toward Gaiveston Bay and the Gulf of Mexico. Galveston Island is an important part of the county. Bolivar Peninsula, extending along the Gulf from Chambers county in a southwesterly direction, is also a portion of the county. Clear Creek, Dickinson, Highland and Moses Bayous flow through the mainland portion into Galveston Bay. Artesian water is found at a depth of 550 feet; other artesian strata exists at greater depths.

Much of the county is too flat for good natural drainage. To overcome this, drainage districts have been organized. District No. 1 covers 40,693 acres. This district was completed at the cost of \$96,000 . District No. 2 containg 26,000 acres. Drainage district No. 3. covering 7,500 acres, joins district No. 9 in Brazoria County, both serving about 50,000 acres. Galveston district No. 3 cost $\$ 30,000$ to complete. The drainage system in this district was completed ut a cost of $\$ 45,000$.

A few small truck farms are irrigated. The rainiall is 47.06 inches per annum. The soils are a deep sandy loam. The live stock industry was formerly very extensively engaged in on the mainland. It continues to be important, though on a much smaller scale. Fruit and truck growing is now the leading occupation in the rural districts. With excellent transportation facilities and two large markets near at hand, truck growing is proving to be very profitable. The citrus iruit industry has attracted more attention than any single branch of horticulture, but several freezes have discouraged many growers. Forticulturalists state, however, that the industry will finally develop along conservative lines. There is also a large acreage of figs and strawberries, these fruits being grown and shipped in car load lots to various markets. Camphor trees are being grown, both for ornamental and commercial purposes.

The dairying industry has been firmly established and dairy products are shipped to Galveston and Houston. A large creamery has been established at Alta Loma. Many of the mainland farmers are becoming interested in the bee and honey industry. The poultry industry has grown to large proportions, special attention being given to the raising of blooded birds. W atermelons and cantaloupes are grown in large quantíties on BoliYar Peninsula and Galveston Island.

One of the large industries is the dredging of road shell from Galveston Bay for road making.

Great strides in highway construction have been made; $\$ 500,000$ in bonds have been issued and the proceeds expended in paving the highways of the county. These roads will join the paved highways of Harris and Brazoria Counties. forming a portion of the Gulf coast highway system.

It is one of the great deep water ports of the United States, ranking second to New York in the importance of its foreign commerce. Lines of steamers out of Galveston reach nearly every important port of the world. It also ranks fifth among the cities of Texas as a manufacturing center. It is also the first exporting cotton port in the world and ranks very high in the fish and oyster industry. Its wholesale and jobbing interests are important. It is famed for its great seawall, constructed by the county which, together with the United States Government wall, borders the city on the Gulf side for a distance of four miles. This wall is bordered by a brick driveway its entire length. The city is also noted for its grade-raising operation which raised the city seventeen and a half feet above mean low tide on the Gull side, the grade slanting toward Galveston Bay on the north side of the city. This seawall cost Galveston County $\$ 1,500,000$. The grade operation, including individual expense, cost approximately $\$ 3,000,-$ 000 . The county, assisted by the railroad interests, completed in 1911 a giant concrete causeway, connecting Galveston Island to the mainland.

This city has found fame in the fact that it was the first city in the United States to adopt the commission form of government. This radical change in the methods of governing cities was brought about by conditions which existed immediately following the storm of 1900 .

## GARZA COUNTMY.

Situated in the foothills of the Plains; created in 1876 from Bexar County and organized in 1907; named for the Garza family; area 821 square miles; population 1,995 in 1910, as against 185 in 1900. Post City is the county seat. It is served by the Gulf, Colorado and Santa Fe Railroad.

The surface is about 50 per cent level, 40 per cent rolling and 10 per cent hilly. Mesquite is the only timber. It is drained by tributaries of the Brazos River and by various canyons and dry water courses. An abundant underground supply of water is reached at a depth of from sixty to eighty feet. There are about 2,500 acres of subirrigated land along the Yellow House Canyon and the tributaries of the Brazos River. The rainfall
averages approximately 21 inches per annum. The soils vary from a tight dark chocolate, with a clay foundation, to red catclaw sandy loam.

Until recent years the entire area. was given over to the grazing of cattle. With the completion of the railroad through to Lubhock came the advance guard of farmers and now many acres are in cultivation. Farming and fruit growing reaches its highest state of development in the vicinity of Post City, one of the new and prosperous towns in the State, but interest in the development of the resources of the soil is taking root in other sections. Cotton is now a prominent crop, a large cotton mill at Post City taking a portion of the annual crop. All varieties of forage stuffs are produced besides the usual grains. Peaches, plums, grapes and berries are grown in small quantities. The quality of the fruit is excellent and settlers are encouraged in setting out small orchards and vineyards.

There is a demand for homeseekers and every newcomer finds a welcome. Lands vary in price from $\$ 10$ to $\$ 20$ per acre.

## GILLIESPLE COUNTY.

Lies in Southwest Texas, west of the city of Austin; created in 1848 from Bexar and Travis Counties and organized the same year; named for Capt. R. A. Gillespie; area 1,140 square miles; population 9,447 in 1910 , as compared with 8,229 in 1900. Fredericksburg, an unincorporated town with a population estimated at 2,000 , is the county seat and chief city. Rail service was recently established from Fredericksburg to Waring, giving connection to San Antonio and other points.

The climate is dry and mild, the average rainfall being about 20 inches. The surface is about equally divided between hilly, rolling and level land. There is a fair supply of timber, consisting of blackjack, post oak, live oak and mesquite. The county has a natural drainage into the Pedernales River, Live Oak Creek, Crabapple, Willow, North and South Grate Barons, Threadgills. Squaw, Bear and Palo Alto Creeks. Water is found in abundance at sixty feet. A few gardens and truck patches are irrigated from wells.

The soil on level land is principally black waxy; on uplands gray sandy loam; in valleys black sandy loam. Live stock raising on ranches is the leading occupation. Cotton, wheat, oats, corn, sorghum, milo maize and Irish potatoes are produced in large quantities. Only about half of the farm lands are under cultivation. Increasing in-
of peaches, pears, plums and grapes. In connection with tha ilve stock industry. dairying hat assumed importance. A creamer is located at Fredericksburg and many farmers produce and and cream and butter. The county is rich in iron. zinc. copper, asbestos, lead and graphite; most of these mineral lands are undeveloped, but considerable prospecting is being done. There are also large depos. its of limestone, granite, sand. stone and soapstone; considerable granite is quarried for commercial purposes. Much of this is utilized in the granite works in Freder. icksburg. Fredericksburg also supports seve:al other industries.

Gillespie County is manifesting considerable interest in the good roads question and has fifty miles of paved highways costing $\$ 1,000$ per mile and seventy miles of well. graded roads. Sand, gravel and clay are used as surfacing mato. rial.

Improved farm lands are sold at from $\$ 20$ to $\$ 50$ per acre, according to location: unimproved lands ars quoted at $\$ 5$ to $\$ 15$ per acre.

## GLASSCOCK COUNTY.

Situated at the foot of the plains; created in 1887 from Tom Green County and organized in 1893; named for George w. Glasscock Sr. area 952 square miles; popu. lation 1,143 in 1910 and 286 in 1900. Garden City, the county seat, is an unincorporated town. There aro no rallroads.
The yreater part of the surface, including the southern and west:ern portions, is level. The easterm portion is somewhat broken. The sandy loam in the northwestern portion is especially adapted to farming and fruit growing and the cark chocolate-colored loam in the southwest produces alif feeds of the sorghum variety. There is sufficlent mesquite, hackberry and wild cherry timber for domestic purposes. It is traversed by the North Concho River in the northeastern part and by the Lacy, a branch of the North Corcho, in the central part. The underground supply of water is abundant at a depth varying from 100 to 200 feet The rainfall averages 18 to 20 inches per annum. Many small truck gardens are watered from wells with windmill power. The grazing of cattle is the principal industry.
Lands are quoted from $\$ 7$ to $\$ 10$ per acre. Live stock raising is the chief occupation of the people.

## goliad county.

Situated in Southw est Texas, ond county removed from the Gult. one of the original counties of Texas and organized in 1837; named for the municipality of the same name; area 817 square miles; population

9,909 in 1910 and 8,310 in 1900. Goliad, the county seat, is an unincorporated town. Berclair, Charco, Fannin, Weser and Weesatthe are other important towns. It is served by the Gaiveston, Harrisburg and San Antonio Railroad.
The surface is slightly undulating, with a gentle slope toward the Gulf. More than half of the area is prairie, with a black sandy loam soil, while that of the river valley is alluvial, with light sandy on the creeks and in the timbered portions. Pecan, elm, cottonwood, sycamore and other hardwoods are found in the river and creek bottoms. Post oak, live oak, blackjack, mesquite and hackberry ars found on the uplands. The San Antonio river crosses from west to east. There are many smaller streams. Water is obtained at depths of from 50 to 150 feet. In some sections a good supply is secured at twenty-five feet. The rainfall will approximate 28 to 30 inches per annum.
Goliad County has always been an important live stock section. Of late years there have been wonderful developments in agricultural lines, rarticularly in the production of fruit and truck. Grapes, figs, peaches and pears are grown. A large acreage is devoted to melons, and these are shipped in car load lots. Large yields are secured from the various crops. Cotton and corn are chief field crops.

Swine breeding has become an important industry, conditions generally tavoring the breeding and raising of fine live stock.

Goliad, the county seat, is one of the historical cities of the State. It was here that one of the massacres of Texas patriots took place previous to the fall of the Alamo. With an equable climate, sufficient rainfall and productive soil, Goliad is becoming one of the prominent Guli coast counties.

Cultivated lends are quoted from $\$ 25$ to $\$ 45$ per acre: unimproved lands from $\$ 15$ to $\$ 20$ per acre. Homeseekers find no difficulty in securing land in large or small tracts. In recent years many new settlers have purchased property in this county.

## GONRALES COUN'TY.

A southwest coast country county; created in 1836 as an original county of Texas and organized in 1837; named for Raphael Gonzales; area 1,079 square miles; populatfon 28,055 in 1910. Gonzales, the county'seat, is an incorporated city with a population in 1910 of $3,139$. waelder, Harwood, Slayden, Nixon, Smiley, Pierson and Cranz are other important towns. It is served by the San Antonio and Aransas Pass and the Galveston, Harrisburg and San Antonio Railroads.

The surface is generally rolling. valley lands being level; it is fairly well supplied with timber, the most prominent varieties being post oak, blackjack, elm, cottonwood and mesquite. Some hardwood lumbering is done. It has a splendid natural drainage, being ciossed by the Guadalupe and San Marcos Rivers and Peach Creek. There is an abundance of good water for stock and domestic uses. An underground supply is reached at a depth of about 300 feet. Artesian wells are found in several sections, and between 100 and 200 acres are under irrigation from water taken from the Guadalupe River and these wells. The rainfall averages 32 inches per annum, surficient in most seasons to produce all staple crops. The climate is mild, the mean minimum winter temperature being 44 and mean maximum summer temperature 93 degrees.

The soils are mostly dark and gray sandy loam, the soil in the valleys being rich black land. Although live stock raising is an important industry, diversified farming is taking precedence. Cotton is one of the chief crops; corn. cane, oats, potatoes, onions and melons produce reavily. Considerable interest is manifested in the growing of peaches, pears, plums and small fruits.

Valuable deposits of sandstone and kaolin are found. Gas has been discovered and the fleld is being developed.

Gonzales County citizens are taking an interest in good roads and have issued $\$ 180,000$ of good road bonds.

Improved tarm lands are quoted from $\$ 15$ to $\$ 100$ per acre, according to location; unimproved lands sell from $\$ 10$ to $\$ 50$ per acre. There is a large acreage unoccupled and open to settlement.

## GRAY COUNTY.

Situated in the northeastern part of the Panhandle; created in 1876 from Bexar County and organized in 1902; named for Peter W. Gray; area 860 square miles; population 3,405 in 1910 and 480 in 1900. Lefors, the county seat, is an unincorporated town. McLean, Pamper and Alanreed are other important towns. It is served by the Southern Kansas of Texas (Santa Fe ) and the Chicago, Rock Island and Gulf Railroads.

The surface is level in the north and west, with hills and fertile valleys in the south and east. Timber is scarce, cottonwood. walnut, elm and willow growing in the river bottoms. It is drained by the North Fork of the Red River and the North and South Forks of McLellan Creek. An abundant supply of underground water is found at depths varying
from 30 to 200 feet. The rainfall epproximates 24 inches per annum.

The soils vary from dark chocolate and sandy to dark and light sandy. In the southern portion a large acreage of subirrigated land is found on which alfalfa is produced. Live stock raising is becoming secondary to diversified farming in sections near the railroad. The cotton acreage is increasing annually, while wheat and other staples are produced in abundance. Melons, apples, peaches and berries are prominent products.
Improvea rarm lands are quoted from $\$ 10$ to $\$ 35$ per acre and unimproved lands at from $\$ 7$ to $\$ 15$ per acre. A large acreage is available for settlers. The county is rapidly filling up with good farmers and the agricultural interests are being rapidly developed.

## GRAYSON COUNTY.

Situated in North Texas, bordering the Red River; created in 1846 from Fannin County and organized the same year; named for Peter W. Grayson; area 1,012 square miles; population 65,996 in 1910, as compared with 63,661 in 1900. Sherman, the county seat, had a population of 12,412 in 1910 and 10,243 in 1900. Denison, another important city, had a population of 13,632 in 1910 and 11,807 in 1900 . Other important towns are Whitewright, Van Alstyne, Whitesboro, Colmesneil, Howe, Bells, Pottsboro and Tioga. It is served by the Texas Traction Company, Missouri, Kansas and Texas, St. Louls Southwestern, St. Louis and San Francisco, Denison and Pacific Suburban, Denison, Bonham and New Orleans, Gulf, Colorado and Santa Fe, Houston and Texas Central, Missouri, Oklahoma and Gulf and Texas and Pacific Railroads.

The general surface is level. Formerly heavily timbered, approximately three-fourths of the area has been cleared. The broad rolling prairies are just uneven enough to afford magnificent drainage to the 100 or more creeks and brooks which follow the narrow valleys to the Red River. The valleys are productive of ali the oaks, pecan, walnut, hickory, hackberry elm and bois d'are trees. Formerly the hardwood resources of the county provided many thousands of feet of excellent lumber and thousands of square yards of paving block. Although much valuable timber remains, the lumber industry is not censidered important.

The agricultural interests outrank all other occupations. The water supply, both surface and underground. is abundant. Surface water is found at various depths, an abundant supply being reached at 700 feet. The rainfall approximates $\mathbf{3 8}$ inches per annum.

The soil of a large area in black waxy, Other sections have a variety of black and gray sandy loams. All are exceedingly fertile and productive. In connection with diversified farming a great deal of interest is taken in the breeding of blooded horses, cattle and hogs. Some of the finest animals of the Southwest are found in Grayson County, Grayson County horses and cattle have taken many premiums at State and international fairs. The dairying industry has grown to large proportions. Several creameries in the county ship large quantities of butter to outside markets. The poultry industry has proved most profitable and large quantities of poultry and poultry products are handled by local markets.

Grayson County is spending large sums of money in the construction of public highways.

Gas has been discovered near Howe. There are also strong indications of oil. The field will be developed.

The cities of Denison and Sherman are both railroad centers of importance and both noted for progressiveness and for their manufacturing and commercial interests. The cities are connected with Dallas by an electric line. There is also irequent interurban service between the two cities, and each one enjoys modern street car service and other modern public utiljties.

There is a healthy movement of real estate in the county; and although there are no large tracts of land open for settlement, new settlers are welcome and find many opportunities to secure farms and homes. Improved farm lands are quoted at $\$ 30$ to $\$ 75$ per acre.

GREGG COUNTY.
Located in Northeast Texas; created in 1873 from Upshur and Rusk Counties and organized the same year; named for Gen. John Gregg; area 287 square miles; population 14,140 in 1910, as against 12,343 in 1900. Longview, the county seat and chief city, had a population of 5,155 in 1910 and 3,591 in 1900 . Gladewater and Kilgore are other important towns. It is served by the International and Great Northern, Texas and Pacific, Gulf. Colorado and Santa Fe, Port Bolivar Iron Ore Railway and Brown's Lumber Railroads.
The surface is mostly undulating with some broken and hilly sections. There is a variety of soils; light gray and mulatto soils predominate on the more elevated portions, while chocolate and stiff black soils are found in the bottom lands. Much of the upland soil is strongly impregnated with iron, which is essential to the perfect development and growth of fruits.

The entire county is covered with a dense growth of timber, consisting of various forms of hardwood and pine. This timber furnishes material for several lumber mills, box factories and hardwood factories.

The Sabine River runs diagonally through the county from northwest to southeast. A number of other streams add to the supply of water. There are also numerous small lakes. Artesian water is found at a depth of 650 feet; surface wells from twenty to forty feet. The rainfall approximates 45 inches per annum.

Although lumbering is an important industry, fruit growing and general farming are chief occupations in the rural communities. Farmers are taking a great interest in the breeding of fine Jersey cattle and in the swine industry. poultry farms are becoming numerous and the shipments of poultry products are increasing each year. Many car loads of peaches are shipped annually.

Lignite and iron ore are found, the former being mined nine miles south of Longview. The iron ore deposits of this section are about to be developed and the ore shipped by way of Port Bolivar to Pittsburg. There are also valuable deposits of brick and pottery clay. This clay is utilized in brick and pottery plants at Longview. There are many indications of oil and gas and an attempt is being made to develop a rield.

Great interest is being taken in the construction of good roads and several precincts are considering bond issues. Longview is important as a railroad center and division point and also has several manufacturing industries. It is a distributing point for a large area of country.

## GRIMIES COUNTY.

Located in South Central Texas; created in 1846 from Montgomery County and organized the same year; named for Jesse Grimes; area 770 square miles; population 21,205 in 1910 and 26,106 in 1900. Anderson, the county seat, is unincorporated. Navasota, the chief city, had a population of 8,284 in 1910. Bedias, Shird, Stoneham, Roans Prairie and Dobbin are other chief towns. It is served by four railroads-the International and Great Northern, Gulf, Colorado and Santa Fe, Houston and Texas Central and Trinity and Brazos Valley.

The surface is hilly in the western and central parts and rolling in the remainder, with much level land. It is well timbered, oak and gum wood being the principal varieties. The hardwood lumber industry is of considerable importancer Rit is drained by the Nava-
sota River and tributaries. Artesian water has been developed, the underground supply being reached at varying depts from 300 to 700 feet. There are also numerous mineral springs, furnishing excellent water for medicinal purposes. The rainfall approximates 38 inches per annum.

The soils vary from black sandy to gray sandy. General farming is prominent, with cotton and corn the leading crops. Situated in the south central part of the State. various forms of truck mature early and truck farming is becoming highly developed. Many car loads of mixed vegetables are shipped to leading markets. Many farmers are paying special attention to potato growing and shipments of potatoes are increasing each year. Live stock raising claims a great deal of attention from the farmers; the breeding of fine Jersey cattie is a leading line. A creamery is located at Navasota, while a large number of farmers conduct dairies and ship their product to market. The poultry industry is prominent. Poultry raisers followed approved methods and heavy shipments of poultry products are made weekly.

Improved farm lands are quoted at from $\$ 60$ to $\$ 100$ per acre, according to location; unimproved lands at $\$ 20$ to $\$ 40$ per acre. A large acreage is available for new settlers.

## GUADALUPE COUNTY.

Located in the south central part of Teras, east of Bexar County; created in 1846 from Bexar and Gonzales. Counties and organized the same year; named for Guadalupe River; area 717 square miles; population 24,913 in 1910 and 21 , 385 in 1900. Seguin, the county seat and chier city, had a population of 3,116 in 1910 , as against 2,421 in 1900 . Other important towns are Marion and Kingsbury. It is served by the Galveston, Harriskurg and San Antonio Railroad.

The surface is level in the southern portion and hilly in the northern part. It is well supplied with timber, but not in sufficient quantity for lumbering industry. Guadalupe River is the principal stream. There is an abundance of good whter for stock and domestic uses. The underground supply is reached at a depth of approximately eighty-five feet. A small acreape is irrigated with water taken from the Guadalupe River. The winter climate is mild and the summer heat is tempered by breezes from the Gulf. The average rainfall is 27 to 30 inches annually.

The soils are very productive, about half black loam and the remainder sandy loam and white sand. Diversified farming is gen-
erally practiced. Many citizens are devoting their entire attention to early truck and small fruits, and car load shipments are made to the leading markets of the country. Large pastures, with but few exceptions, disappeared many years ago. Live stock raising, however, is a profitable industry. being conducted largely in connection with farming. Cotton is the leading staple crop. Oats and corn are produced in considerable quantities. A large acreage is devoted to growing matermelons and these are shipped to market centers by the car load. Pecans are a valuable natural crop and great attention is now being pald to the protection of the wild growth and to the planting of new and large varietles.

Among the natural resources are deposits of brick clay, the product being utilized at Seguin in the manufacture of vitrified and face brick. Coal has been discovered in various localities, as well as many traces of oil and gas. Like many Southwest Texas counties, there are various traditions relative to lost silver mines. These lost mines are supposed to be located in a high range of hills in the southeastern part of the county, where old, abandoned shafts may be seen. The water power of the Guadalupe River has been partially developed and furnishes power for large flour mills at Seguin.
Guadalupe County has constructed fifty miles of surfaced highways. There is a growing interest in the better highway movement. Improved farm lands are variously quoted from $\$ 25$ to $\$ 125$ per acre: unimproved lands trom $\$ 15$ to $\$ 30$.

## HALE COUNTY:

Situated in the Plains; created in 1876 from Bexar County and organized in 1888; named for Lieut. J. C. Hale: area 1,036 square miles; population 7,566 in 1910 , as against 1,680 in 1900. Plainview, the county seat and chief city, had a population of 2,829 in 1910. Hale Center, Abernathy, Petersburg, Runningwater, Ellen and Norfleet are other important towns. The county is served by the Pecos and Northern Texas Railroad (Santa Fe).

The surface is generally level, with 98 per cent tillable and subject to irrigation from the almost inexhaustible supply of underground water. The slope of the land is to the southeast. The natural drainage is good. The depths of wells range from forty-five to sixty-five feet. In some sections, however, wells reach a depth of 200 feet. The only running stream is White River, water breaking out in many small springs, and
after flowing about sixteen mile sinks into the ground.

The raising of live stock on ranches has always been and is now one of the important industries. Conditions, however, have changed radically since it has been demonstrated that large yields of feedstufis can be secured by proper attention to plowing and cultivation, and it is becoming the practice for ranch owners to cultiVate a large acreage of maize. Kaffir corn, sorghum, millet and other grains and grasses for winter feed. In many instances ranchers have branched out into farming and grow cotton and nearly all have small orchards.

In the vicinity of Plainview and Hale Center successful work in agriculture and horticulture were made before it occurred to the citizens to develop the underground water supply for irrigation. Since the bringing in the first well three years ago, development along this line has been rapid and 4,300 acres are watered each season with splendid results in the form of magnificent yields of cotton, corn, maize, Kaffir corn, wheat, oats, sorghum and fruits and vegetables, Others are farming without irrigation, but by practicing proper methods are securing large yields of all staples.

Under proper guidence and attention this section will attain prominence in the production and marketing of fruit. Some $\mathbf{3 , 0 0 0}$ acres of apples, many orchards bearing, are thriving in the Plainview and Hale Center section and there is a tendency to set out orchards by many newcomers, as well as old citizens. Standard varieties thrive and produce exceptionally well. Peaches, plums, apricots, small fruits and melons do equaliy as well.

The soils of Hale County are a chocolate and sandy loam, similar to that of other Plains counties. It is easily tilled, holds moisture and is very fertile.

Improved lands vary in price from $\$ 20$ to $\$ 75$, it depending upon improvements and location. Unimproved land is found in large and small bodies and can be purchased at prices ranging from \$15 to $\$ 25$.

## HALL COUN'TY.

Situated in the southeastern part of the Panhandle; created in 1876 from Bexar County and organized in 1890; named for Warren, D. C. Hall; area 868 square miles; population 8,279 in 1910 and 1,670 in 1900. Memphis, the county seat and chief city, had a population of 1,936 in 1910 . It was unincorporated in 1900. Other important towns are Newlin and Estelline. It is served by the Fort Worth and

Denver City Railroad. The Altus, Roswell and El Paso Railroad is graded eighteen miles southwest from the east line. It is expected that this line will be constructed in th near future.

The surface is rolling, with occasional hills and mesas in the eastern part. A light growth of cottonwood and hackberry is found along the streams. The South Fork of the Red River runs almost due east through the northern part. This stream and its tributaries furnish an excellent drainage and through most parts of the year excellent water for stock. Good well water is found at depths varying from 60 to 120 feet. The rainfall approximates twenty-four inches per annum. The rain is well distributed through the crop-growing months, and in ordinary years there is a sufficiency for the production of all Panhandle staples.

The soils vary from black aandy to red sandy loam. In the Red River Valley is found a large acreage of subirrigated land, which is excellent for alfalia. Diversified farming is becoming a leading occupation. Cotton is the leading money crop, but a large acreage is devoted to Panhendle staples, including sorghum, cowpeas, peanuts, melons and truck. Some interest is displayed in setting out orchards of peaches, apples and other fruits. These fruits have been grown in small orchards for many years.

The live stock industry continues to hold precedence over all others. Of late years much attention has been given to the improvement of breeds, and at the present time blooded and graded stock can be found in all sections. The climate is favorable to the poultry industry, and a large number of birds are raised for market each year.

Some excellent brick clay is found and a brick plant is operated at Memphis.

Hall County is alive to the necessity of more settlers. A large acreage of good farm lands has been placed on the market and homeseekers have no difficulty in making purchases of tracts in all sizes at prices varying from $\$ 10$ to $\$ 25$ per acre.

## HAMILTON COUNTY.

Situated in North Central Texas, west of Waco; created from Bosque, Lampasas and Comanche Counties in 1858 and organized the same year; named for Gen. James Familton; area 858 square miles; population 15,315 in 1910 and 13 ,520 in 1900. Hamilton, the county seat, had a population of 1,548 in 1910; it was unincorporated in 1900 . Hico, another important town, had a population of 1,437 in 1910 and 1,480 in 1900. Carlton, Pottsville
and Fairy are other towns. It is served by the $\boldsymbol{s t}$. Louis Southwestern, Stephenville North and South Texas and Texas Central Railroads.

It is abundantly watered by the Bosque, Cowhouse, Leon and Lampasas Rivers and Warren, Bear, Hartridge and Plum Creeks. There are also many permanent springs. A ridge of high land in the northwestern part divides the waters of the Leon and Cowhouse from the waters of the Brazos, and araother ridge near its southern border forms the watershed for the Colorado River. These ridges are for the most part high, plat table land, from which the intervening country seems a great valley, though in fact of diversified, rolling and undulating surface, cut by many timber-skirted streamiets and varied by large areas of prairie. Much of the soil is black waxy and chocolate varieties mixed with sand.

On the post oak ridges is found a native Texas blue grass very similar to the blue grass of Kentucky and often mistaken for it. This gives an excellent pasturage for stock. The live stock interests are very important. Conditions are particularly adapted to the grazing of cattle, horses and sheep.

The rainfall, which approximates from 30 to 35 inches, is well distributed throughout the growing season, which fact has encouraged a rapid spread of diversified farming. The principal staple crops are cotton, corn, wheat and oats. Various other field crops are grown and produce abundantly. Peaches, plums, pears and apricots are grown successfully for home consumption. Interest in horticultural matters is increasing and larger orchards are being set. Various forage crops, such as alfalfa, cowpeas, millet and sorghum, are grown in large acreage. Various kinds of truck do well.
Hamilton County has made steady progress in population and in the development of its natural resources. Homeseekers will find no difficulty in securing lands in tracts to suit at moderate prices. Raw lands are variously quoted at $\$ 8$ to $\$ 12$ per acre; cultivated land from $\$ 20$ to $\$ 35$ per acre and up.

HANSFORD COUNTYY.
Situated in the north tier of counties of the Panhandle; created in 1876 from Bexar County and organized in 1889; named for John M. Hansford; area 860 square miles: population 935 in 1910, as compared with 167 in 1900. Hansford, the county seat, is an unincorporated town. There are no railroads. The Enid, Ochiltree and Western has surveyed a line through from Dalhart.

The surface is level except along
he Palodura and Cold Water county from northeast to southwest, and the latter crosses the forthwest corner. These ster for tock in the sections through which they pass. The whole surface underlaid isy a shed at a depth aver which is reached The rainfall ap proximates 22 to 24 inches per an

Along the creeks are extensive
plats, which produce an abundant plats, which produce. The soil of the prairies is a rich, black sandy loam. For many years live stock chief industry. Of recent years ranchmen have greatly improved the grades of their cattle, hors is and sheep. General about 1,000 acres being irrigated by water from the Paloduro Creek. A lalong the streams and on irrigated land. Leading the chief crop, yield well in all portions. Peaches, apples, plums, grapes and che no effort has been made to develop the fruit industry beyond the needs of home demands. A great many rarmers have engaged in the poustry indus-
try, and large shipments of poultry products are annually made to outside markets.
Many ranches have been placed
upon the market to be cut into upon the market lo are quoted from $\$ 10$ to $\$ 25$ per value of improvements.

HARDEMAN COUNTY
Situated th Norhandle proper bordering the panhan north; crewith in 1858 from Clay County and organized in 1894; named for Bailey Hardeman; area 532 square miles; population 11,213 in 1910, as against seat and chier city, had a population of 3,127 in 1910 and 1,651 in 1900 . Other important towns are Goodlet. It is served by the Fort Worth and Denver City, St, Louis and San Francisco, Kansas nah. Acme and Pacific Railroads nah. Acme ace is level except along the extreme south line, where the Pease River ander a low range of mountains. There is an abundance of mesquite for fuel purposes, but no other timber. The Red River borders on the north and the Pease supply of water is found at a depth averaging ninety feet. A inte furnishes reservoir near chillcotficient to ir-
rigate 10,000 acres. Approximatel
5,000 acres of this amount 5,000 acres of this amount ha
been developed, forming one of the largest alfalfa fields in the United States. The rainfall averages fro 28 to 32 inches per annum. It is distributed largely throug.
spring and summer months. The soil is a sandy loam under laid with gypsum, with consider able black land in the valleys. Al
of it is easily worked and exceed of it is easily worked and excee
ingly fertile. Stock farming, fo merly the principal industry, miving way to agriculture and a arge area is under cultivation Wheat, corn, cotton and other ordinary years.
Large pastures are being cut into farms and placed on the mar-
ket. The price of land has adket. Theed considerably, but improved farm land can be obtained at from $\$ 25$ to $\$ 60$ per acre; per acre. Many new settlers have moved into Hardeman County and are assisting in the development of the agricultural resources. farmers are paying cons of improved grades of cattle, horses and hogs. Some of them are devoting considerable trye Broom corn is also a profitable crop.
The county has many valuable deposits of gypsum rock and large cement plaster Quanah is impor tant as a railroad center and ha many prosperous industries. Th city

## HARDIN COUNTY.

Located in Southeast Texas, one county removed from the Gulf of Merty and Jefferson Counties and organized the same year, namare for William Hardin; area in square miles; populatith 5,049 in 1900 . Kuntz, the county seat, is an unincorporated town. Sour Lake, the chierporated, but has an estimated corporated, tant towns are Silsbee, Saratoga, Batson, Honey Island and Village. and Santa Fe, Texas and New Orleans, Beaumont, Sour Lake and Western (Frisco) Railroads. The surface is generally with some hills in the eastern portion. hardwood, in sufficient quantities to employ a large number of men in the the Neches River on the drained and by Big and Little Pine Island Bayous on the west. The ig Sandy Creek flows througher is central at a depth of about 150 feet ound at a depth of about

Most of Hardin County has a light sandy loam soil. There is some black waxy land tock raising is ern portion. industry, but cut-over a leading lands are being rapidiy developed into paying farms. farming is growing in shipments are made to near and markets.
by markets. oil producers in the at Saratoga, Fields are located ake During Batson arly days of the oil excitethe earillions of cubic feet of ural gas were allowed wasted by large quantities. At the present spouting gushers. Astry is conducted along sane lines, and most of to old-time gushers have ceased the surface by means of pumps. Two surfaced thousand dollars in bonds have been issued for the construc

## HARRIS COUNTY

Situated in the coastal plains, situated Galveston Bay on the south; one of the original in 1837 of the State, organichardson Harnamed ris : area 1,761 square miles; popuris: area 1 lation 115.63 in 1910, as compared with 65,786 in 1900 . Housty, had a county seat and chiel in 1910 and population of
44.638 in 1900 . Hockley, Westfield, Lynchburg, Harrisburg, and Genoa Heights, Katy, Webster is served by are Galveston, Harrisburg and San the Galvestoxas and New Orleans, Houston and Texas Central, Hous (all ton East and wic lines), Galveston, Southern Pad Henderson, Missouri, Kansas and Texas, Internati and and Great Northern, Brazos Valley, and Mexico (Frisco), Beavmont, Sour Lake and Aransas (Frisco), San Antonio and Galveston-Houston In Pass and Railroads.
erurban Railroads. The and sently rolling and is traversed by numerous creeks an oak, pine, ash, guin, supplied with od pecan timber in sufficient amount to make Buflumber industry important. River falo Bayou, San Jacinto Bayou, Bray's Bayou, Green's Bayou, Clear and Springs Creeks travers iound county Artesian 600 feet; surface at a depth of dewer depths. water at shathern portion artificial drainage is necessary to secure best results. There are tistricts, No. 1 covering 31,616 age districts, No. $\$ 60,000$; No. 2 , covacres, costing $\$ 60,0$
ering 81,580 acres,
000. Other drainage districts are

## under consideration.

The rice industry is very urominent, approximately 25,009 acres The live stock industry has not deceased in importance, alinoligh large areas of the county are now large areas of truck growing and devoted fiversified farming. Although large pastures no considerable attention dairy and fa he breeding ofiry herds are main stock. Great the purpose of supply ing milk, cream and butter herds maintained for the purpose of supplying creameries at Alvin.
That section lying south of Houston is being cut into small tracts occupied by rrut and is degoted to A large acreage vegetables and melons. One of the large ofl fields of the Southwest has been developed at Humble, seventeen miles nor theaces of Houston. There are other ty. Deof oil and gas clay have been ce-
posits of brick charris-
veloped near Houston and Haris
burg. Harris County is one of the leaders in the construction of paved public highways. The county has 305 miles of paved roads, costing approximately $\$ 4,500$ per are 2,300 addition to this, of well graded roads, costing $\$ 150$ per mile. The county $\$ 1,600,000$ for improved pubpended $\$ 1,600,000$ Under provision of lic highways. Under prounty has the state lormed into a navigation district and $\$ 1,250,000$ in bonds have been issued and sold for an equal* pose of supplemovided by the Federal Government to be used from deepening Buffalo Bayou and Harrisburg to Galvestoy to deep a channel through Roads.
The city of Houston in 1910 was the third city in size in Texas. It is prominent as a railroad and manufacturing center and a general distributing point for is also becoming chaminent as an educational cenprominent as an editute buildings now being under construction. A large acreage is on the mar ket and a lands vary in price from Tmproved lands acr acre, depending upon location and improved from unimproved to $\$ 50$ per acre.

HARRISON COUNTY Situated in Northeast Texas, bordering Louisiana; created in
1839 from Shelby County and or1839 from in 1842 ; named for Jonas
ganized
Harrison; area 873 square miles; Harrison; area 873 square miles,
population 37,243 in 1910 , as compared with 31,878 in 1900 . Marshall, the county seat and chiel city, had a population of 11,452 in 1910 and 7,855 in 1900. Hallsville, Harleton and Waskom are other important towns. It is served by the Texas and Pacific, Missouri. Kansas and Texas and Marshall and East Texas Railroads.

The eastern portion is rolling and well drained, with many level stretches; the western portion is somewhat broken, but most of it can be cultivated. It is abundantly supplied with timber, both pine and hardwood. There yet remains many million feet of merchantable timber and the pine and hardwood industry is an important factor in the industrial progress of various communities. A large per cent of the land is susceptible of profitable cultivation when cleared.

The Sabine River forms a portion of its southern boundary. Cypress Creek flows across the northwest corner into Caddo Lake, which forms the northeastern boundary. Various creeks flow through the county, emptying into the Sabine River. Artesian water is found at depths varying from 75 to 650 feet. The rainfall approximates 45 to 48 inches per annum.

Diversified farming and fruit growing are leading industries. Hundreds of car loads of peaches are shipped annually to Northern and Eastern markets. Plums, apples, pears and various kinds of berries are also grown in large quantities. Interest is being manifested in experiments with the Japanese persimmon, figs and pomegranates. Pecans are being grown on a large scale, many orchards of improved varieties having been set out during the last few years. A number have made a success in grafting paper shells on the native hickory.

Cotton is an important crop, but increasing attention is being given to the growing of potatoes and various forms of truck. Live stock raising is conducted along with diversified farming, special attention being given to the breeding of fine Jersey cattle. Many breeders are devoting themselves to the finest strains of Jersey blood known to exist and high prices are received by breeders for the best of their stock.
Deposits of iron, lignite and coal are found, but are undeveloped. A fine grade of brown sandstone has been discovered. There are deposits of potters' clay, brick clay and glass sand. Many traces of il have been discovered and thousands of acres are under lease for prospecting purposes.

Harrison County has constructed 120 miles of tine sand clay roads. This was done without bond issues. Marshall is one of the progres-
sive East Texas cities and ranks tenth among the cities of the State in manufactures. Natural gas is supplied the city for domestic and manufacturing purposes at a very low rate from the Caddo oil and gas fields in Louisiana. The car wheel and foundry and Texas and Pacific Railroad shops are located in Marshall. The Marshall and East Texas Railroad also has its headquarters and shops in this city. There are various other concerns employing a large number of men.

HARTLEY COUNTY.
Situated in Northwest Panhandle, bordering New Mexico; created in 1876 from Bexar County and organized in 1891; named for $O$. C. and R. $K$. Hartley; area 1,460 square miles; population 1,298 in 1910, as against 377 in 1900. Channing, the county seat, is unincorporated. Hartley, Romero and Middlewater are important towns. It is served by three railroadsthe Fort Worth and Denver City, the Chicago, Rock island and Gult and the Enid, Ochiltree and Western.

The surface is level plain, breaking off in a few places into abrunt canyons. Very little timber is found. A branch of the Canadian River, with its tributaries, give a good natural drainage. An abundance of water is found at a depth of 350 feet. Small patches are irrigated from surface wells. The average rainfall approximates 18 inches annually.

The soil vartes from loose sand to dark and chocolate loam. It absorbs moisture freely and resists dry weather. Live stock raising is the chief industry, one of the leading branches being the raising of hogs. The soils produce an abundance of peas and other forage crops, while the natural grasses are nutritious and encourage the development of the swine industry. Diversified farming with dry farming methods is a growing industry. Apples, cherries and pears have been found to do vell and there are many small orchards.

Improved farm lands are quoted from $\$ 10$ to $\$ 20$ per acre; unimproved land from $\$ 5$ to $\$ 15$. A large acreage is available for new settlers. The opportunities for the development of the various branches of the live stock industry are many.

## HASKELL COUNTYY.

Situated in Northwest Texas; created in 1858 from Fannin and Milam Counties; organized in 1886; named for Charles Haskell; area 843 square miles; population 16,249 In 1910, as against 2.637 in 1900 Haskell, the county seat and chiel city. had a population of 2,436 in 1910 and an estimated population
of 600 in 1900. Rule, Sagerton, Rochester and Weinert are other important towns. It is served by the Wichita Valley, Kansas City, Mexico and Oifent and Stamford and Northwestern Railroads.

Practically 90 per cent of Haskell County is level, only a small area of rough rock land being found in the southeastern part. It is fairly well timbered with mesquite on the uplands and pecan, elm, cottonwood, hackberry and wild china in the bottom land. The Brazos River cuns from north to south along the western border, dipping into the county for a distance of several miles. California and North and South Paint Creeks drain the central, southern and southeastern portions. Branches of the Paint Creok drain the eastern and northern portions. A good supply of water is found at depths of twelve to eighty feet. The rainfall approximates 24 inches per annum.

The soils vary from gray to black and chocolate loam. The western quarter is sandy, which is adapted to the growth of melons, sweet potatoes, peanuts and truck. Diversified farming and live stock ralsing are the leading occupations of the people. Cotton is considered the money crop, although milo maize holds first place among the grains because of its dry weather qualities. Small orchards of peaches and plums thrive, while grapes are a proven fruit. It is estimated that not more than onethird of the tillable land is under cultivation.

A fine quality of limestone is found in the southeastern part. Haskell, the county seat, has many industries of importance, among them being a creamery, cotton seed oil mills, ice factory and other concerns of public utilities.

Improved farm lands are quoted from $\$ 25$ to $\$ 40$ per acre: unimproved lands from $\$ 15$ to $\$ 30$ per acre.

## HAYS COUNTY.

Situated in South Central Texas, between San Antonio and Austin; created in 1848 from Travis County and organized the same year; named for John C. Hays; area 647 square miles; population 15,518 in 1910. as against 14,142 in 1900. San Marcos, the county seat and chief city, had a population of 4,071 in 1910 and 2,292 in 1900. Other towns are Kyle, Buda and Dripping Springs. It is served by the International and Great Northern and Missouri, Kansas and Texas Railroads. An electric line to be constructed from San Antonio to Austin will pass through the county.

The northern portion is hilly and broken, some of the hills and rocky ridges being almost mountains in
their proportions. The southern and eastern portions are rolling prairie, black waxy and chocolate colored loam predominating. Alluvial soil. very productive, is found in the river and creek bottoms. The soil in the northern portion is especially adapted to the raising of grapes and fruits. General and live stock farming is practiced in the southern and eastern parts.
Five streams of water traverses the county from northwest to southeast, namely, San Marcos and Blanco Rivers and Cypress, Bear and Onion Creeks. With the exception of the San Marcos, these streams are normally small. The San Marcos River is noted for its grandeur. Its source is in the outskirts of the city of the same name. where it gushes from the rock hill at the rate of 400,000 gallons per hour. About one mile from this great spring the waters are held captive by a large dam, thus forming a beautiful lake ten to forty feet deep. Water thus impounded supplies the city and furnishes water power for driving machinery. Several small farms are also irrigated from the waters of the San Marcos River. An abundant supply of underground water is found at a depth averaging 200 feet. The rainfall approximates 32 inches per annum. Alfalia is grown in the irrigated districts. Cotton is the chief money crop.
Improved farm lands are quoted at $\$ 50$ to $\$ 100$ per acre. There are no large tracts of land for colonization purposes, but there is room for more settlers in all sections of the county. Hays County has constructed 100 miles of good roads, expending therefor $\$ 90,000$.

## FEMPEIILI COUNTY.

Situated in the Panhandle; created in 1876 from Bexar County and organized in 1887; named for Judge John Hemphill; area 860 square miles; population 3,170 in 1910 . against 815 in 1900. Canadian, the county seat and chief city, had a population of 1,648 in 1910. Isaacs, Mendota and Glacier are other towns. The county is served by the Southern Kansas of Texas (Santa Fe) Railroad.

The surface is generally rolling. with some plains; hills and breaks are found along the Canadian River in the northern and the Washita River in the southern part. A small growth of cottonwood and black locust is found along the streams. An abundance of water is secured at a depth varying from 15 to 200 feet. Small tracts are irrigated from wells and reservoirs. A great deal of interest is being manifested in the development of the underground supply of water, and it is thought that a large acreage will be cultivated
by irrigation in the next few years. The rainfall approximates 24 inches per annum.

The soils are mostly deep black on the level lands and a reddish sandy loam in other portions. Live stock raising on ranches is the principal industry of the people. General farming is extensively practiced and is rapidly encroaching upon the great pastures. Heavy crops of alfalfa are produced along the Canadian River and other streams. Broom corn is a very profitable crop. A large acreage is devoted to wheat, corn, maize and other staples. Cherries, apples and peaches are proven iruits, but are not raised in quantities for the market. The production of alfalfa is encouraging the swine industry, and nearly all farmers are becoming interested in that line.

Hemphill County has an average altitude of 2,500 feet. The climate is healthy and the rainfall well distributed and sufficient for the growth of all ordinary crops in average years. The county is settling up rapidly with experienced farmers and its resources are being developed. Large quantities of land are open to new settlers at prices ranging from $\$ 10$ to $\$ 30$ per acre, depending on location and improvements. Canadian, the county seat, is making rapia progress in growth and is becoming one of the leading cities of the Panhandle country.

## HENDERSON COUNTY.

## Situated in East Texas, between

 the Trinity and Neches Rivers, about fifty miles southeast of Dallas: created in 1846 from Houston fnd Nacogdoches Counties and organized the same year; named for Gov. J. Pickney Henderson; area 940 square miles; population 20,131 in 1910. Athens, the county seat and chief city, had a population of 2,261 in 1910. Chandler, Malakoff, Eustace, LaRue, Brownsboro. Murchison and Trinidad are other towns. It is served by the St. Louis Southwestern and the Texas and New Orleans Railroads.The surface is generally level, broken slightly by ravines and creeks. There are slight elevations in the eastern portion. It is well timbered, post oak, red oak, hickory, blackjack, sweetgum and pine being in sufficient quantities to furnish raw material for an extensive lumber industry.

Bordered by the Trinity River on the west and the Neches on the east, with their numerous tributaries reaching into the county, it is not only well drained, but has an abundant supply of water for all purposes. Artesian water is found at a depth of 1,200 feet: other underground supplies at depthe of from twenty-five to
ninety feet. The rainfall approxi. mates 38 inches per annum.

The soil is generally sandy, but much more productive than its appearance would indicate. Rich al. luvial soil is found in the bottoms. Fruit growing on cut-over lands is a growing industry, Diversified farming is generally practiced, cotton and corn being the chlef staple crops. Within the last three years the pea crop has been great. iy increased and has become important as one of the special crops of that section. A large acreage is also devoted to sweet and Irish potaotoes, sugar cane, melons and truck. Peaches are the leading horticultural product, though other fruits are produced. The live stock industry is carried on in connection with farming. Many farmers are engaged in breeding fine horses, jacks and mules.

Iron ore and lignite deposits of considerable value exist. Valuable deposits of brick clay are being developed, a large plant at Athens producing various kinds of earthenware.

Improved farm lands are quoted at $\$ 15$ to $\$ 25$ per acre; unimproved lands from $\$ 8$ to $\$ 12$ per acre. Settlers are rapidly occupying available lands, but a large acreage is still open for newcomers.

## HIDALGO COUNTY.

Situated in Southwest Texas. bordering the Rio Grande, one county removed from the Gulf of Mexico; created in 1852 from a portion of Cameron County and organized the same year; named for Guadalupe Hidalgo; area 1,583 square miles. A portion of Hidalgo County was taken in 1910 for the organization of Brooks and Willacy Counties, which were created under a law passed by the Thirty-First Legislature. Population 13,728 in 1910, as compared with 6,837 in 1900. Edinburg, formerly Chapin, the county seat, is an unincorporated town with an estimated population of 1,000 . Mercedes, the chief city of tre county, had a population of 1,209 in 1910. McAllen, Mission and Garner are other towns. It is served by the St. Louis, Brownsville and Mexico and San Antonio and Rio Grande Valley Railroads.

The surface is generally level. There is sufficient mesquite, Brazilwood and ebony for domestic purposes. The Rio Grande borders the south. Artesian water is found at a depth approximating 500 feet: surface water at depths varying from twenty-five to fifty feet. About 200.000 acres of rich valley land along the Rio Grande is susceptible to irrigation, and of this amount 55.300 acres were in cultivation in 1913. The rainfall varies from 21 to 26 inches per annum.
in the northern portion are large cattle ranches.
Along the river valley irrigated farming is the chief industry and is being developed rapidly. Sugar cane is one of the staple crops, the lands and climate being particularly adapted to the development of that industry. There is also a large acreage of cotton, corn, alfalfa. sorghum and Egyptian Wheat. Winter truck farming is engaged in by a large number, onions and cabbage being profitable in ordinary years. As the irrigated section is developed in other lines, more attention is being paid to the planting of flg, orange and lemon trees. These fruits have been grown successfully and horticulturists claim that the fruit industry should become prominent in this section. The bee and honey industry has attained considerable prominence in many sections. The poultry industry is also becoming profitable.
The soil in the river valley varies from a deep black sandy loam to lighter loams on the second shelf. The upland soils vary from chocolate loam to sandy loam. Improved lands in the irrigated district vary in price from $\$ 75$ to $\$ 150$ per acre. Well located lands are frequently quoted at a higher figure. Unimproved uplands are quoted at $\$ 5$ to $\$ 15$ per acre.

## Hill County.

Situated in North Central Texas; areated in 1853 from Navarro County and organized in 1854: named for George W. Hill; area 1,006 square miles; population 46 , 760 in 1910 and 41,355 in 1900. Hillsboro, the county seat, had a population of 6,115 in 1910 and 5.346 in 1900. Hubbard City Itasca, Whitney, Blum, Mount Calm, Brandon, Aquilla, Irene, Malone and Bynum are other important towns. It is served by the Missouri, Kansas and Texas, St. Louis Southwestern, Trinity and Brazos Valley, Gulf, Colorado and Santa Fe, Texas Central and International and Great Northern Railroads and the Southern Traction Company.
The surface is undulating, with some rugged hills skirting the Brazos River on the west. There is also considerable level land. It is well timbered with post oak, hackberry and elm. The Brazos River forms its western boundary. Numerous tributaries of this stream furnish adequate arainago and an abundance of water. Artesian water is found at depths varying from 500 to 1,000 teet while good well water is secured at depths of from fifteen to forty feet. The rainfall approximates 35 to 88 inches per annum.

The soll varies from black waxy. Which constitutes most of the prai-
rie land, to dark and gray sandy of the cross timbers. The soils in the Brazos Valley vary from a yellow sandy to chocolate land and are exceedingly fertile.

Hill County is located in what is known as the black land belt of Texas and is one of the prominent agricultural counties of the State. Cotton, corn and oats are the leading crops and are named in order of their prominence. Diversified methods are practiced generally. Peaches, pears and grapes do well. Fully 75 per cent of the county is in a high state of cultivation. The live stock industry is confined to the farms and is highly developed. The poultry industry has grown to large proportions and many citizens are devoting their entire attention to the raising of fine poultry stock and to the marketing of poultry products. Practically every well-known breed is represented.
Farm lands are much in demand. There is an active movement in real estate, and although there are no large tracts for colonization. new settlers have no trouble in finding suitable locations. Improved farm lands are quoted from $\$ 40$ to $\$ 100$ per acre; unimproved lands from $\$ 10$ to $\$ 40$ per acre.

## HOCKLEY COUNTY.

Situated in the Plains; created in 1876 from Bexar County and is still unorganized; named for Adjt. Gen. G. W. Hockley; area 977 square miles; population 137 in 1910 and 44 in 1900 . The Pecos and Northern Texas Railroad (Santa Fe) crosses the northeastern corner.

The surface is level plain. A branch of the Brazos River crosses the northeastern portion. Good well water is obtained at moderate depths. The rainfall will approximate 22 inches per annum. Without railroad facilities the agricultural resources have had but little development. Thus far it is essentially a live stock county. With improved transportation it is believed that new settlers wilj take notice of the many opportunities of the agricultural resources. Such little farming as has been practiced has demonstrated that all West Texas staples and fruits can be successfully produced. Under present conditions the county is given over to ranch owners and large pastures are the rule.

## HOOD COUNTY.

Situated in North Central Texas; created in 1866 from Johnson County and organized the same year; named for Gen. John $B$. Hood; area 436 square miles; poprlation 10,008 in 1910, as compared with 9,146 in 1900. Granbury, the county seat, had a population of 1,336 in 1910. Thorp Spring, 'To'ar. Waples and Cresson are othcr

## TEXAS COUNTIES

It is served by the Fort Gulf, Colorado and Santa the extreme northeast urface is broken with
olling hills and vallays. zos River about equaliy the county, passing uxy, Stroud, Long. Squaw, Robinson Creeks furnish Dance of clear runaing ong these streams. ater is found at a depth of
0 feet. An underground 0 feet. An underground feet. The rainfall approxito 33 inches per annum. the creek and river hotands have a light sandy e stock farming is an im-
industry. Practically all nch land has been devel farms. Wheat growing
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nomeseekers are arriving ficulty in County. There large and small tracts. farm lands are quoted nds at $\$ 10$ to $\$ 20$ per acre.

## OPKINS COUNTY.

n in Northeast Texas: hes Counties and organame year; named for one
pioneer families of the area 666 square miles;
$\mathrm{n} 31,038$ in 1910 and 27,950 diphur springs, the coun5,151 in 1910 and 3,635 in t, Brashear, Picton, Reily nhe county is served by
The ci, Kansas and Texas
ouri, ouri, Kansas and Texas
face as a whole is level, is sufficient undulation
age. The soil is sandy to
black waxy, with a great deal o divided between prairie and timber lands. Various kinds of oak, hickory and blackjack exist in suffi cient quantity and quality to war hardwood mills. Sulphur, White Oak and Burr Creeks furnish an abundant supply of water at all can be secured at depths of from 20 to 100 feet. The rainfall averages from 37 to 40 inches per anThe agricultural interests are increasing land values by practicCotton and the grain crops are grown in all sections. The hay crop, including forage crops, such as peas and sorghum, are promi-
nent on nearly every farm. Elberta peaches and plums are grown for the market. Various other A great deal of interest is being manifested in the growing of apples and the indications are that Hopkins County will become prominent in the culture of this stock is carried on in connection With farming. Apiculture is one of the growing industries and fruit swarms of bees are profitable. Hundreds of farmers are making a success of the poultry industry. mined at como. Traces of oil are found and much prospecting has been done, but thus far the field
is undeveloped. is undeveloped.
structed fifty miles of surfaced highway at an average cost of $\$ 1,500$ per mile. Further bond issues for public highway purposes
are contemplated by other precincts.
Sulphur Springs, the county seat, has made a rapid growth and is merous industries have located there and are prospering. at $\$ 20$ to $\$ 50$ per acre for improved land and $\$ 15$ to $\$ 25$ per acre for is well settled, there is room for demonstrated that the small, well cultivated farms yield proportionately a greater profit than the large farms, and many large land holders are placing portions
their holdings on the market.

## HOUSTON COUNTY.

Situated in East Central Texas: crated in 1837 from Nacogdoches year; named for Gen. Sam Hame ton; area 1,192 square miles; popu25.452 29,564 in 1910, as against 25.452 in 1900. Crockett, the county
seat and chief city, had a populaseat and 3,947 in 1910 and 2,612 in
tion of
1900 . Lovelady, Grapeland, Ratcliff, Augusta, Welowns. It is served by the Interational and Great Northern, Beaumont anas Railroads The surface is undulating with large stretches of level prairie, oak is heavily timbered with pine, oak hickory and other hardwood employ ment to many of its citizens. It is well drained by the east, and River, which borders the Trinity River, which borby the the west. There are numerous creeks and springs. The average depth of wells is between the average rainand forty feet.
The soils vary from black waxy along the creeks and rivers to black sandy, light sandy and ands. Farming is attracting increasing attention and is second to the lumbering industry, nection with agriculture. Increasing interest is manifested in the growing of fruit, and peares and plums are shipped to peaches and plums arkets of the State. Horticulturists state that there are hundreds of acres of landy in Houston County particupples and the opinion of these experts is being accepted by many who are planting orchards. There is articua large acreage which is parth of the larly adapted to the tobacco. Large quantities of poultry and poultry products are marketediving attenpoultry raisers are giving atancy fowls.
Valuable deposits of iron ore and lignite coal exist. Lignite is mined in large quantities near crocket. rock and granite are undeveloped. There shale, blue sandy, green marle and gray plastic. crockett, the county seat, secures a part of its support from the large lumber various other industries, such as creameries, can ning factories and fertilizer factories, are located are becoming in terested in good roads, a bond is sue of $\$ 174,000$ havingilding paved for the purpose of bullding paved also discussing good road bond is sues.
sues. at $\$ 20$ to $\$ 30$ per are and unim prove. A large acreage is available
for new settlers.

HOWARD COUNTX. Situated in West Texas; created in 1876 from Bexar County and orD. Howard; area 888 square miles; pared with 2,528 in 1900 . Big Spring, the county seat af 4,102 in city, had Coahoma, Morita, Bisco, Soash and Vincent are other towns. It is served by the Texas and Pa cifie Railroad.
The southern portion is rolling the northern parthwestern part hilly. Mesquite is the only timber. There are no running streams. The Sulphur Draw, a tributary or west to east in the south central portion, but this draw is dry except in rainy seasons. 20 inches per anproximates Andant supply of water is. And depths ranging from 30 to 160 feet.
prominent. cattle industry is very prominent. Some interest is manity in the vicinity of Big Spring. The agricultural and the usual West Texas staples are successfully produced in ordinary years. Peaches, plums and melons are grown for the market Watermets.
load lots.
A white sandstone is abundant
and is quarried for building material. While ranchmen control a large acreage in Howard County, a con siderable acreage is is quoted from $\$ 10$ to $\$ 20$ per acre for unimproved and from $\$ 20$ to $\$ 40$ for improved farms. Big Spring is a division point on The shops of the railroad employ many men. A number road eustries, including several cot ton gins, are prospering there.

## HUNT COUNTY.

situated in North Texas; created in 1846 from Nacogdoches and Fannin, Counties named for Memucan Hunt; area 888 square miles; population 48,116 in 1910, as compared with the county seat and 8,850 in 1910 and 6.860 in 1900 . Commerce, Celeste, Wolfe City and Lone Oak are other towns. The county is serv, Misthe St. Kansas and Texas, Texas souri, $M$, Gulf, Colorado and, Santa Fompany Railroads.
The general surface is high and rolling, though there are considerable areas of level prairie sections. the souther of the area was orig One-fourth ored with timber, but
much of this has been cleared away. There yet remains a considerable growth of post oak, elm. ash, hickory, pecan, walnut and bois d'are.

It is abundantly watered by the several branches of the Sabine Kiver and Sulphur Fork of the Red River. There is also a large number of small streams, giving a fine natural drainage to every section. An abundant underground supply of water is secured at depths of from 90 to 100 feet.' The rainfall approximates 37 to 40 inches per annum.

The soils are rich and productive. In the northern and western portion black waxy prevails; in the eastern and northeastern portions a black sandy soil is found. Light loams predominate in the valleys of the creeks and streams, while in the uplands or timber sections there is a gray sandy soil, with occasionally strips of black sandy and sticky black soil. A very large portion is susceptible to cultivation. Diversified farming is generally practiced in all sections. The raising of fine stock is conducted along with farming. The general tendency is toward a better grade of dairy cattle. Cotton, corn, sugar cane, alfalfa and oats are the leading staple crops. A large acreage is devoted to berries and melons. The horticultural interests are large, and grapes, peaches, pears and apples are produced for the market. Many car loads of peaches are shipped annually.

There is also increasing interest in the bee and honey industry and in the poultry industry. A number of citizens are paying special attention to the breeding of fine poultry.

Greenville, the county seat, is one of the progressive North Texas cities, in which many prosperous industries are located.

Although Hunt County does not contain a large acreage of unoccupied land, there is a healthy movement in real estate and many opportunities are open for new settlers. Unimproved lands are quoted from $\$ 8$ to $\$ 25$ per acre; improved lands at $\$ 35$ to $\$ 100$ per acre, depending upon location and value of improvements.

## HUTCHINSON COUNTY.

Situated in the northern portion of the Panhandle; created in 1876 from Bexar County and organized in 1901; named for Anderson Hutchinson; area 850 square miles; population 892 in 1910, as against 303 in 1900. Plemons is the county seat. There are no railroads. The Tinid, Ochiltree and Western has surveyed a line through from Dalhart.

The southern portion is rolling; the northern part smooth, level
plain. There is sufficient cottonwood, hackberry and china for firewood and fence posts. The Canadian River, with its tributaries, furnishes adequate drainage to all portions. The underground supply of water on the plains is secured at a depth of 200 feet; in the breaks at twenty feet. All the creeks are fed by springs, and there is an abundance of water in all seasons. The rainfall approximates 20 inches per annum.

The soils vary from a light sandy to a dark sandy loam. On the plains it is a rich, dark sandy, varying in depth from three to fif: teen feet. A black waxy variety is found in the valleys of the creeks. Live stock raising on ranches is the chief industry. Diversified farming is practiced in a limited way, the usual Panhandle staples being successfully produced in ordinary years. A large acreage is available for new settlers. Lands are quoted from $\$ 10$ to $\$ 20$ per acre. There is considerable limestone in the county suitable for building purposes, but the deposits remain undeveloped.

## IRION COUNTY.

Situated in West Central Texas: created out of a portion of Tom Green County in 1889 and orgenized the same year; named for Robert Irion; area 800 square miles; population 1,283 in 1910 and 848 in 1900. Sherwood, the county seat, is an unincorporated town. Mertzon and Barnhart are other important towns. It is served by the Kansas City, Mexico and Orient Railroad.

The surface is broken by low ranges of mountains and hills. with many rich valleys composed of various soils, sandy loam predominating. It is well covered with mequite timber, fine pecan timber and other hardwood along the rivers. Spring and Dove Creeks have their heads in large springs. It is traversed by the main Concho, which, with numerous tributaries, furnishes an abundance of water and excellent drainage. Good well water is found at depths which vary from 25 to 350 feet. About 1,600 acres are under irrigation, the water being secured from Spring Creek.

The live stock industry takes precedence over all others. The rainfall, which approximates 18 to 20 inches per annum, is sufficient under proper cultivation for the growth of Kaffir corn, maize and other West Texas staples. Irrigation is a live question, and it is believed that water resources will be developed which will insure a large acreage in cultivation within a few years. Lands are quoted at moderate prices. There is sufficient on the market to supply the demands of homeseekers.

## JACK COUNTY.

Situated in North Texas, northwest from Fort Worth, one county removed from Red River; created in 1856 from Cooke County and organized in 1857; named for Patrick C. Jack; area 858 square miles; population 11,817 in 1910, as compared with 10,224 in 1900 . Jacksboro, the county seat and chief city, had a population of 1,480 in 1910 and 1,311 in 1900. Other important towns are Bryson, Vineyard, Jermyn, Gibtown and Antelope. It is served by the Chicago, Rock Island and Gulf and the Gule, Texas and Western Railroads.

About one-half of the area is level, including creek valleys; onefourth rolling, a part too rollitis for cultivation, and the other fourth hilly. It has a sufficient supply of post oak, blackjack, pecan, walnut, elm and hackberry timber for all domestic purposes. The West Fork of the Trinity crosses from northwest to southeast. This stream, with its numerous tributaries, provides an abundance of water at all seasons of the year. Artesian water exists at depths varying from 100 to 600 feet, there being two stratas of water-bearing sands and gravel. About 100 acres in small truck patches are irrigated from artesian wells. The rainfall approximates 33 inches per annum.

The upland solls are mostly deep sandy loam, generally dark, but occasionally red. The valleys contain black sandy loam and some black mesquite land. The subsoil is red and yellow clay. Jack County is known as a prominent cattle country. Of late years micn ettention has been given to improving the breeds of cattle, horses and hogs and in developing the dairy industry. A creamery is successfully operated at Jacksboro. Range cattle have practically disappeared, and in their pliace file found blooded cattle, horses, mules and hogs. Breeders have taken many blue ribbons at the fat stock shows of this and other States.

The agricultural interests are becoming more important and jeneral farming is practiced in neaily all sections. Cotton is the main money crop. Horticultural products include peaches, plums, apples, grapes, apricots and various berries. The time devoted to fruit growing has proved profitable and shipments to other markets are on the increase. Nearly every farm also has its poultry division and Jack County boasts of many fine fowls.

Coal is mined in the northwestern part. Oil is found in shallow wells on the West Fork of the Trinity River. There are also d3posits of iron, but these are andeveloped. Immense quantities of
fine building stone exist in various parts, consisting of blue limestone, sandstone and a low grade of marble and granite. Limestone is quarried on a large scale, this being one of the important industries. Large deposits of brick and fire clay also exist. No attempt has been made to develop the brick and fire clay deposits. Large quantities of crushed rock are shipped to Dallas and Fort Worth paving contractors.

A large number of ranches are being subdivided and placed on the market at prices ranging from $\$ 7.50$ to $\$ 25$ per acre; improved farm lands are quoted at $\$ 12.50$ to $\$ 50$ per acre.

## JACKSON COUNTY.

Situated in South Texas, bordering Matagorda Bay; one of the original counties of Texas and organized in 1837; named for Gen. Andrew Jackson; area 888 square miles; population 6,471 in 1910 and 6,094 in 1900 . Edna, the county seat and chief city, is an unincorporated town. Ganado, Navidad, El Toro and Lolita are other important towns. It is served by the Galveston, Harrisburg and San Antonio and the St. Louis, Brownsville and Mexico Railroads.
The surface is generally level prairie, with a gentle slope toward the Gulf. The northwestern portion, comprising about one-fifth of the area, is covered with a scattering growth of post oak and blackjack, with live oak. pin oak, elm and other hardwoods along the streams. The Navidad and Lavaca Rivers, Sandies, Mustang, Arenosa and Carrancahua Creeks furnish excellent drainage and an abundance of good water. Wells of good water are obtained in most sections at moderate depths. The rainfall will approximate 35 to 40 inches per annum.

The solls are divided between a light sandy and a dark loam, with some black waxy. Within the last few years truck farming has been developed to large proportions. Diversified farming is generally practiced and splendid yields of cotton. corn, sorghum and other staples are obtained. The rice acreage approximates 12,000 . However, the live stock industry is yet a prominent factor in the commercial welfare of the people. This industry is being placed on a better basis. Large pastures are disappearing and in the place of immense herds of cattle are found smaller numbers of better bred stock.

The fruit industry is prominent, although many orchards are yet young and not producing the maximum yield. F'gs have a natural growth. The soil and climatic conditions are most favorable to the truck industry and this feature of
the agricultural life is becoming more highly developed than any other. Shipments of early vegetables and melons are made in car load lots and the revenue obtained is encouraging an expansion along this line.

A large acreage is in its virgin state. Lands are easily obtained by homeseekers at moderate prices. Prices vary from $\$ 10$ to $\$ 40$ per acre. Jackson County lies in the rain belt of Texas and irrigation for ordinary farming is not necessary. Water, however, is abundant and a large acreage is generally devoted to the cultivation of rice, for which purpose irrigation is a necessity.

## JASPRER COUNTYY.

Situated in East Texas; one of the original counties of the State; organized in 1837 and named for Sergt. Jasper; area 977 square miles; population 14,000 in 1910 , as against 7,138 in 1900. Jasper, the county seat, and chief city, is unincorporated; its population is estimated at 3,000 . Kirbyville, Bessmay, Roganville, Buna, Browndell, Remlig and Evandale are other important towns. It is served by the Gulf, Colorado and Santa Fe, Jasper and East Texas, Texas and New Orleans and Orange and Northwestern (Frisco) Railroads.

The surface is level in the southern part, slightly rolling in the center. It is heavily timbered with pine, white oak, hickory and ash, and lumbering is an important industry. It is thoroughly drained by the Neches and Angelina Rivers and by a large number of creeks. An abundant supply of water is found at a depth of from eighteen to forty feet. Artesian water can be had at a depth of 1,000 feet. The rainfall will approximate 45 to 48 inches per annum.

The soils are sandy loam, with considerable Orangeburg in the vicinity of Jasper; there is also some black waxy. These soils are adapted to fruit growing and diversified farming. All forms of truck are easily produced and markets are convenient. The prairie lands are occupied by prosperous farmers. Much of the cut-over land is being taken up and placed in cultivation.

Live stock raising is an important industry on the farms. There is much good fruit land, but beyond growing peaches, figs and berries for home demands but little attention is given to it. There is also a large amount of land sultable for tobacco growing. A considerable area of Orangeburg soil has been tested by Government experts and pronounced excellent for growing tobacco for cigar making. This industry, however, has never been developed Previous to the Civil War a con-
siderable, acreage of tobacco was grown for home consumption With the exception of a few patches grown by experts no effort has been made to prove the value of this industry.
of recent years many citizens have developed interest in poultry raising and large shipments are made to near-by markets. Lands may be secured in large and small tracts by homeseekers at very reasonable prices.

## JEFF DAVIS COUNTY.

Situated in West Texas, touching the Rio Grande at its extreme western point; created in 1887 from Presidio County and organized the same year; named for Jefferson Davis; area 1,922 square miles; population 1,678 in 1910 , as compared with 1,150 in 1900 . Fort Davis, the county seat, is unincor: porated. Valentine is another town. It is served by the Galveston, Harrisburg and San Antonio Railroad. The Pecos Valley Southern has been surveyed through it

A greater part of Jeff Davi County is hilly and mountainous There are some level river and val ley lands. There is sufficient timber for fuel. There are a large number of dry water courses, also several creeks which flow the year round. Water is found at depths varying from thirty-five to eighty feet. A flow of 80 to 300 gallions of water per minute is secured from some of the deeper wells by centrifugal pumps driven by gasoline engines. These wells are used for irrigation purposes and approximately 2,000 acres are thus cultivated. Irrigation farms lie mostly in the valleys.

The range of mountains known as the Davis Mountains contain some of the highest peaks in the South. Baldy Peak has an altitude of 8,382 feet; Saw Tooth Mountains have an altitude of 7,748 feet, while there are a great many other peaks varying from 4,000 to 6,000 feet.

The rainfall is light, approximating 14 inches per annum. The soil is mostly a brown chocolate loam made up of washings from the mountains during the course of many centuries. These soils are exceedingly fertile and very productive when brought under cultivation by irrigation methods. Thus far irrigation has been applied largely to orchards and small tields of alfalfa. Apples do particularly well and a large acreage is being set. Other fruits, such as peaches, pears, apricots and cherries, are successfully produced. Jeff Davis also ranks high in the number of range cattle annually grazed in its large pastures.

Although extremely mountainous in some sections, it does not rank high in the production of minerals.

There are indications of deposits of cinnabar, from which quicksilver is made, copper, silver and other mineral deposits, but very little development has been made.

Fort Davis, the county seat, formerly an important United States army post, is now becoming prominent as a summer resort, and many hundreds of tourists visit the mountains in thia vicinity annually.

## JHEFPERSON COUNTY.

Situated in Southeast Texas, bordering the Gulf of Mexico on the south and Louisiana on the east; one of the original counties of the State, organized in 1837; named for Thomas Jefferson; area 1,109 square miles; papulation 38,182 in 1910, as compared with 14,239 in 1900. Beaumont, the county seat and chief city, had a population of 20,640 in 1910 and 0,427 in 1900. Port Arthur, an important town and one of the deep water ports of Texas, had a population of 7,663 in 1910 and 900 in 1900. Sabine Pass, Port Neches and Sabine are other towns. It is served by the Beaumont, Sour Lake and Western (Frisco), Texas and New Orleans (Southern Pacific), Kansas City Southern and Gulf, Colorado and Santa Fe Railroad systems. An electric line is in operation between Beaumont and Port Arthur.

The surface is generally level. Formerly heavily timbered in the northern portion, it has been cut away with the exception of along the river bottoms. The Neches River and Sabine Lake form the eastern boundary. Artesian water exists at a depth of 3,000 feet. A good underground supply of water is found at a depth averaging thirty feet. The natural drainage is good only in portions. Artificial drainage is necessary in a large section for best results. The question of draining the county is receiving serious discussion among land owners. Rice being one of the principal products, irrigation is important. About 75,000 acres are under ditch. The rainfall of 48 inches per annum makes irrigation unnecessary for other crops.

The soils consist largely of black clay loam, black sandy loam, chocolate loam and pine sand land. The live stock industry has always been important. In the vicinity of Beaumont, Port Arthur and in all sections where good roads have been constructed the agricultural interests are making rapid progress. Success in truck and smallfruit farming is attracting many new settlers. General field crops are easily grown, cotton proving very successful of late years. The rice production of Jefferson County will average $\mathbf{7 0 0 , 0 0 0}$ bags per
annum. Approximately $\$ 4,000,000$. including four large mills, are invested in this industry.

A large number of fig, orange and plum orchards have been set out and are doing well. Pears, grapes and strawberries are also proven fruits.

Beaumont is situated on the Neches River, about two and onehalf miles from the famous Spindietop oil field. This oil field was discovered Jan. 10, 1901, and at that time was the greatest gushing oil lield in the world. Oil wells were bored into Spindletop so close together that there was scarcely room for the location of equipment. Wildcatting in the vicinity of Spindletop proved that the field $w$ as limited, and that in reality the field consisted of an enormous pool of oil. The discovery of oil at Spindletop, however. made the city of Beaumont the center of the oil industry for the Southwest. Pipe lines from Oklahoma and from various Texas oil fields center at Beaumont Port Arthur and Neches. Oil refineries are located at all three points. Beaumont is also important as a lumber market as a rice center and as a wholesale and jobbing city. It will become a deep water port when the work now under way is completed.

Port Arthur is important as one of the deep water ports of Texas, the commerce of which has grown within a few years to large proportions.

Jefferson County is a leader in the construction of good roads: $\$ 400,000$ has been expended in the construction of paved highways, mud shell being the material used. These roads have cost approximately $\$ 5,000$ per mile. The county has 100 miles of paved highways and 500 miles of graded roads. The graded roads have cost an average of $\$ 1,500$ per mile.
Improved farm lands are quoted from $\$ 20$ to $\$ 75$ per acre. and unimproved lands from $\$ 12.50$ to $\$ 25$ per acre. The extension of the county highway system largely increased land values in some sections.

## JIM HOGG COUNTY.

Jim Hogs County was created in 1913 from portions of Brooks and Duval Counties and organized the same year. It was named after former Gov. Jim Hogs. Its area is 1,099 square miles, 1,052 of which was taken from Brooks County and 47 from Duval County. The county seat is Hebbronville, formerly in Duval County. A description of resources, climate, etc., is included in the description of Brooks and Duval Counties, conditions being generally the same.

## JIM WELLS COUNTY.

Located in the West Gulf coast country; created in 1910 from Nueces County; organized in 1911; named for Jim Wells; area 868 square miles; population (estimated) 5,500 in 1910 . Alice, the county seat and chief city, had a populacion of 2,136 in 1910 and 1,011 in 1900. Sandia, Tremont, Alfred, Orange Grove and Magnolia, are other important towns. It is served by the Texas-Mexican (Mexican National) and the San Antonio and Aransas Pass Railroads.

The surface is almost level, well drained and covered with a good growth of mesquite, which is the only timber. The Nueces River forms its northeast boundary. Several creeks provide stock water in the central and southern parts. It is in the artesian belt and flows are secured at depths varying from 500 to 1,000 feet. Good water exists at a moderate depth. The rainfall averages 26 inches per annum.

The live stock interests form a large and important factor in the material welfare of the people. There are many large ranches on which thousands of head of wellbred cattle graze. Notwithstanding the importance of this industry. there is a steady movement of farmers into the county, who are occupying the lands along the railroads and who are cultivating a large acreage of cotton, corn, forage crops, fruit and truck. Developing the artesian water supply is encouraging the fruit and truck lines and winter gardening is both popular and profitable. Many farmers keep bees, the production of honey playing an important part in increasing the revenues of those thus engaged.

Improved farm lands are quoted at $\$ 25$ to $\$ 50$ per acre. Other lands may be obtained at $\$ 10$ to $\$ 25$ per acre.

## JOHNSON COUNTY.

Situated in North Central Texas; created in 1854 from Navarro and McLennan Counties and organizej the same year; named for $B$. T. Johnson; area 744 square miles: population 34,460 in 1910 and $33,-$ 819 in 1900. Cleburne, the county seat and chief city, had a population of 10,364 in 1910 and 7,493 in 1900. Alvarado, Grandview, Rio Vista. Venus, Burleson, Godley. Joshua, Lillian, Keen and Cresson are other important towns. It is served by the Gulf, Colorado and Santa Fe, Missouri, Kansas and Texas, Trinity and Brazos Valley. International and Great Northern Railroads and the Southern Traction Company of Fort Worth.

The west one-third is high and rolling black prairie land; the middle one-third is sandy land known as the Cross Timbers belt; the east
one-third is level black land Blackjack, post oak and pecan timber are found in abundance. It is well drained by the Nolan River and a large number of creeks. Ar. tesian water exists at depths vary. ing from 400 to 900 feet. The rainfall will approximate 35 inches por annum. A considerable area is susceptible of irrigation from the Brazos River, which flows along the southwestern corner.

The soils are adapted to diverai. fied farming. A large portion is rich and black, there being only a small area of sandy land. Cotton is the leading crop. Corn and oats are other important staples. A large acreage is devoted to the production of hay, peanuts, potatoes, melons and fruits. Peaches are shipped in large quantities and plums, apples, pears, grapes, persimmons, cherries, figs and various berries are proven fruits and grown for home consumption.

A few small ranches on which fancy cattle are raised are operated in the western section. Live stock farming is general. The dairying industry has grown to large proportions and produces a large annual revenue. Many farmars are also interested in apiculture and in the poultry industry. It is estimated that the annual sale of poultry and poultry products at one of the leading markets of the county will approximate $\$ 25,000$. Some poultry raisers are making large profits by breeding and selling tine stock and eggs for hatching purposes.

Farm lands rank with the best in the State. Improved lands are quoted variously from $\$ 40$ to $\$ 100$ per acre; some unimproved lands are quoted from $\$ 10$ to $\$ 50$ per acre. Many of the larger farms are being cut into smaller tracts and placed on the market. The general tendency is toward smaller farms and intense cultivation. There are many opportunities for homeseekers.

JONES COUNTPY.
Situated northwest of the geographical center of the State, five counties straight wes from Tarrant County; created in 1858 from Bexar and Bosque Counties and organized in 1881; named for President Anson Jones; area 900 square miles; population 24,299 in 1910 , as against 7,053 in 1900. Anson, the county seat, had a population of 1,842 in 1910. Stamford, the chief city, had a population of 3,902 in 1910 . Hamlin, Avoca, Lueders, Hawley and Tuxedo are other important towns. It is served by the Wichita Valley, Texas Central and Abilene and Southern Railroads.

The surface is generally rolling, with considerable level land. Prac-
ticully 90 per cent is tillable. Mesquite, post oak and blackjack are found in sufficient quantities for fuel and fence posts. It is drained by the Clear Fork of the Brazos River, Noodle, Bitter, Sweetwater and California Creeks. There is an sbundant supply of water for stock and domestic uses. The underground supply is reached at a depth averaging 60 to 125 feet. The rainfall approximates 24 to 26 inches per annum.

The soils are black and chocolate in the northern and southern portions, with some sandy soil in the center. Various kinds of soils are found in all parts; all are easily cultivated and very productive under ordinary conditions. About 35 per cent of the tillable land is under cultivation.

Less than a decade ago Jones County was devoted almost entirely to stock raising, but during the last few years the county has settled up rapidly and the large pastures cut into farms and are producing abundant crops annually. Cotton is the chier money crop, but all West Texas crops, including peanuts and other forage crops, are extensively grown. Fruit growing is not a prominent industry, but small orchards of peaches and plums and small vineyards of grapes have demonstrated the fact that fruit can be successfully and profitably produced.

The rapid increase in population and the building of railroads have provided markets for farm products and have made profitable the production of all forms of truck and melons. Interest is being awakened in the bee and honey industry. Poultry raising, while not an important industry at this time, is becoming more generally followed in all sections.

Valuable deposits of limestone are being developed, the product tinding a ready market.

Stamford, the chief city, is noted for the progressiveness of its citizens and for its public improvements. Although not a large city, it has thirty-four blocks of brick paving, fine public buildings, business houses and residences. A number of industries are successfully conducted in the city. It is also one of the West Texas educational centers.

Improved farm lands are quoted from $\$ 20$ to $\$ 40$ per acre; unimproved lands at $\$ 10$ to $\$ 15$ per acre.

KARNES COUNTY.
Situated in Southwest Texas; oreated in 1854 from Bexar, DeWitt and Goliad Counties and organized the same year; named for Henry Karnes; area 740 square miles; population 14,942 in 1910 and 8,681 in 1900. Karnes City, the county meat, is an unincorpor-
ated town, with a population estimated at 750. Runge, Kennedy, Falls City, Green, Helena and Panamario are other towns. It is served by the San Antonio and Aransas Pass Railroad.

The surface is largely rolling. there being some level and some hilly land. Mesquite, live koa and post oak are the principal varieties of timber. It is well drained by the San Antonio River and the Cibolo, Ecleto and Hondo Creeks. There is an abundant supply of water, the average depth of wells being 205 feet. A small area is under irrigation by water taken from the San Antonio River and from wells. The average rainfall approximates 25 to 27 inches.

The soils vary from black waxy to sandy loam. Ranching continues to be an important factor in the material prosperity. Dairying is growing in importance, one creamery at Runge and another at Kennedy furnishing markets for a large area. Diversified farming and truck growing occupy the attention of increasing numbers each year. The bee and honey industry is becoming an important factor in the industrial progress of the farmer. There are 1,800 swarms of bees on the farms.

Copper, phosphate and gold have been discovered. The deposits have not been developed. A good quality of sandstone is quarried. Pottery and brick clay exist in abundance. Natural gas has been discovered in the southern part.

Lands are quoted at moderate prices to homeseekers.

## KAUFMAN COUNTY.

Situated in Northeast Texas, east of Dallas; created in 1848 from Henderson County and organized the same year; named for David S. Kaufman; area 932 square miles; population 35,323 in 1910 and 33,376 in 1900. Kaufman, the county seat, had a population of 1,959 in 1910. Terrell, the chief city, had a population of 7,050 in 1910 and 6,330 in 1900. Crandall, Elmo, Forney, Kemp, Lawrence and Mabank are other important towns. It is served by the Texas and $P a$ cific, Texas Midland and Texas and New Orleans Railroads. An electric line will be constructed from Dallas to Terrell.

The surface is slightly rolling prairie, interspersed to the extent of about one-third of the area with forest composed of post oak, black oak, red oak, hickory, bois d'arc, pecan, elm and haw. Nearly ali the county is very productive farming land. The leading varieties of soils are a black, tenacious lime land, a dark loam, red mandy and gray sandy. The East Fork of the Trinity River and Cedar King and Big Brushy Creeks and
smaller streams distribute an unfailing water supply. The rainfall approximates 35 to 40 inches per annum. Well water is found at moderate depths.

All staple crops, cotton and corn leading, are produced in abundance. Climate and soil are adapted to fruit and truck growing, and a considerable acreage is devoted to these industries. The poultry industry is important and large shipments are made to local, and distant markets.

The price of lands vary considerably. Unimproved lands fairly well located can be purchased as low as $\$ 10$ to $\$ 15$ per acre. Some lands are quoted at $\$ 100$ per acre. Homeseekers will always find sufficient land upon the market to supply their needs.

Terrell, the chief city, is becoming important as a commercial center and enjoys the trade from a large territory. The North Texas Insane Asylum is located here.

## KENDALL COUNTY.

Situated in Southwest Texas to the north of San Antonio; created in 1862 from Blanco and Kerr Counties and organized the same year; named for George Wilkins Kendall; area 613 square miles; population 4,517 in 1910 and 4,103 in 1900. Boerne, the county seat and chief city, had a population of 886 in 1910. Comfort, Waring, Kendalia, Sisterdale and Welfare are other important towns. It is served by the San Antonio and Aransas Pass Railroad.

The surface is broken by valleys and lofty hills alternating, the latter in some cases reaching the proportion of mountains. There is a scattered and scrubby growth of live oak, post oak, blackjack and some walnut, cedar and elm, which covers about one-third of the surface. The Guadalupe and Cibolo Rivers, both perpetual streams, together with the Minger, Balcomes, Frederick, Wasp, Salinas, Sister, Joshua and many other creeks, afford an abundant supply of water and give good drainage. Underground water exists at an average depth of eighty feet. The rainfall approximates 24 inches per annum

The native grasses of the county grow luxuriantly and are highly nutritious. Live stock raising, on this account, is one of the principal industries. Large flocks of goats and sheep keep down the brush on the ranges and cattle and horses require but little attention and feeding during the winter months. The dairy industry is becoming established, and two creameries are in operation. The agricultural interests are small, but are becoming more important. Oats are the surest crop, producing an average of forty bushels to the acre. Cot
ton and corn are also raised. Peara plums and peaches are proven fruits, but are not extensively grown.

Valuable deposits of limestons. exist, but are undeveloped; there are also some traces of oil and gas.

Boerne, the county seat, has a high elevation and is becoming a health resort. It has numerous hotels in which to care for tourista.

Improved farm lands are quoted at $\$ 20$ to $\$ 25$ per acre; unimproved lands at $\$ 10$ to $\$ 12$ per acre.

KENT COUNTY.
Situated in West Texas, bordering the Plains; created in 1876 from Bexar County and organized in 1892; named for R. Kent; area 777 square miles; population 2,655 in 1910 and 899 in 1900 . Clairmont. the county seat, is an unincorporated town. Jaytown, the chief city, has a population estimated at $600^{\circ}$ The county is served by the Wichita Valley Railroad.

A considerable portion of the surface is level, the remainder rolling and hilly. It is well timbered with mesquite. The drainage is cared for by the Double Mountain and Salt Forks of the Brazos River; both cross the county from west to east. An abundant supply of water is found at an average depth of 150 feet. The rainfall approximates 21 to 23 inches per annum.

The soils are mostly deep sandy loam underlaid with clay. Under methods which tend to conserve moisture and with proper cultivation they are productive of good crops of the various West Texas staples. The same conditions relative to horticultural products as found in other West Texas counties exist here. Apples, plums, peaches and small fruits, also grapes, can be profitably grown

Although the number of farmers are increasing each year, live stock raising on the ranches is the chiei cccupation of the people. The development of better cattle, hogs, mules and horses is adding to the prominence of the industry.

Ranch owners are listening to the call of progress and placing a large acreage upon the market Improved farm lands are quotec at $\$ 10$ to $\$ 20$ per acre; unimproved lands at $\$ 5$ to $\$ 10$ per acre. A good quality of red standston exists and some of the publik buildings have been constructed os this material. Oil has been discovered fourteen miles west o Clairmont, and indications of ga: have been found in several places A first-class brick clay has als been located, but as yet is unde veloped. Material for the manu facture of cement plaster is plenti ful and a plant is in operation a Jayton.

## KERR COUNYIY.

situated in Southwest Texas; created in 1856 from Bexar County and organized the same year: named for James Kerr; area 1,210 square miles; population 5,505 in 1910 and 4,980 in 1900 . Kerrvile. the county seat and chief city, had a population of 1,843 in 1910 and 1.423 in 1900. Center Point and Moores are other important towns. It is served by the San Antonio and Aransas Pass Railroad.

The suriace is rolling, with many hills. Live oak, Spanish oak and cedar are the principal varieties of timber. It is drained by the Guadalupe River and its tributaries. There is an abundant supply of water for live stock and domestic uses. The underground supply is reached at a depth of 50 to 300 feet. Small tracts are irrigated from the Guadalupe River, creeks and wells. Bottom land soil is alluvial; upland soil sandy loam. The rainfall approximates an an* nual average of 24 to 26 inches.

Live stock raising on ranches is the leading industry. Jersey cattle are rapidy finding favor with those interested in dairying. $A$ large amount of poultry is also raised. Farming is conducted on a small scale only, but the possibilities of irrigation are attractive and the future is bright for the development of extensive agricultural interests. The soil and climate favor fruit growing, as well as general farmirg. There are excellent opportunities for homeseekers and investors.

## KIMBLE COUNTY.

Situated in Southwest Texas, northwest of San Antonio; created in 1858 from Bexar County and organized in 1876; named for Henry Kimble; area 1,302 square miles; population 3,261 in 1910 , as compared with 2,503 in 1900. Junction City, the county seat and chief city, has an estimated population of 536. London and Roosevelt are other towns. There are no railroads.

Generally speaking, the surface is mountainous. Between the ranges are broad and beautiful valleys, which are covered with a luxuriant growth of mesquite grass. The chief kinds of timber are pecan, white oak, walnut and elm, which grow abundantly along the water courses. Some live oak, cedar and shin oak are found on the uplands. There is an abundance of water. The North Llano comes in from the northwest, the South Llano from the southwest. uniting below Junction City. These streams, with their tributaries, make Kimble one of the best watered counties of the State. Not only do they furnish an abundance of water for the live stock, but un-
limited facilities for irrigation. Approximately 3,800 acres are under cultivation by irrigation methods, producing aifalfa, corn, sweet potatoes, wheat and other staple crops. The rainfall will approximate 20 to 22 inches per annum.

Upland soils are mostiy black sandy loam. The eastern part is somewhat sandy, the balance being divided between chocolate and black sandy. Outside of the irrigated districts live stock raising is the chief industry.
Irrigated lands, where improvad. sell in the neighborhood of $\$ 100$ per acre; other lands are quoted from $\$ 2$ to $\$ 10$ per acre. The bee and honey industry is proving profitable. There are approximately 1,000 swarms of bees. A large acreage is available for homeseekers.

## KING COUNTY.

Situated in Northwest Texas: created in 1876 from Fannin County and organized in 1891; named for William King; area 928 square miles; population 810 in 1910 and 480 in 1900. Guthrie, the county seat, is an unincorporated town. Dumont is another important town. There are no railroads.

The surface for the most part is rolling prairie, with a rich sandy loam soil. A portion known as Little Arizona is mucb broken and contains an inexhaustible supply of cement and lime. The timber growth is sufficient for domestic purposes. It is drained by the North and South Forks of the Wichita River and by Croton and Willow Creeks. The underground water supply is obtained at a depth of 60 to 200 feet. The rainfall approximates 25 inches per anr.um. Cattle raising is the leading. industry, but general farming is more extensively practiced each year. Some interest is manifested in the development of fruit growing, and a number of peach orchards are thriving. A.ll kinds of berries do well.

Deposits of copper and limestone exist, but remain undeveloped. Although the cattle interests control most of the land and are somewhat backward in encouraging agricultural pursuits, of recent years a large acreage has become available for settlement. Improved farm lands are quoted from $\$ 15$ to $\$ 25$ per acre; unimproved land from $\$ 5$ to $\$ 10$ per acre.

## KINNBY COUNTY.

Situated in Southwest Texas; created in 1850 from Bexar County and organized in 1874; named for H. L. Kinney; area 1,269 square miles; population 3,401 in 1910 and 2,447 in 1900. Brackettsville, the county seat, is an unincorporated town. Spofford is another impor-
tant town. It is served by the Galveston, Harrisburg and San Antonio Rajiroad.

The surface is undulating, fully one-half being arable prairie lands of rich quality. The northern and eastern portions are very hilly, but afford good grazing land. There is sufficient mesquite, cedar and oak for domestic purposes. The west prong of the Nueces River runs through the eastern and northeastern parts, draming large valleys. The Rio Grande borders the southwestern portion; Sycamore Creek crosses the northwestern part and forms a portion of the western boundary. Elm Creek, Las Moras and Thacom Creeks rise in the central and north central part and empties into the Rio Grande. Live oak and pecan trees line the banks of the running streams. An underground supply of water is found at an average depth of 200 feet. On the West Nueces River are several large lakes. Water for live stock is secured from the running streams, these lakes, wells and tanks.

Approximately 4,000 acres are under irrigation along the creeks and rivers. Hay, corn and truck are produced on these farms. The rainfall approximates 24 to 26 inches per annum. Live stock raising is the chief industry. Irrigation farming is becoming more extensively practiced, while many are making a success by adopting dry farming methods. Conditions are excellent for the development of the bee and honey industry, and interest is general throughout the settled portions.

Deposits of coal have been discovered. There are also traces of gold and silver. There is a limestone of excellent quality, which is used locally for building purposes. Lands are variously quoted from $\$ 15$ to $\$ 20$ in the improved section; raw lands from $\$ 5$ to $\$ 8$ per acre.

## KLEBERG COUNTYY.

Created and organized in 1913 from a portion of Nueces county and named for Robert Kleberg. The county seat is Kingsville. It is served by the St. Louls, Brownsville and Mexico Railroad. Its general description is included in the story for Nueces County, conditions being practically the same. Its ares is 1,012 square miles.

## KNOX COUNTY.

Situated in Northwest Texas; created in 1858 from Fannin County and organized in 1886; named for Gen. Henry Knox; area 947 square miles; population 9,625 in 1910, as against 2,322 in 1900. Benjamin, the county seat, is unincorporated. Munday, Goree, Knox City, Vera, Rhineland and Truscott
are other towns. It is served by the Kansas City, Mexico and Orient and the Wichita Valley Railroads. The Gulf. Texas and Western has announced an extension through the county.

The general surface is rolling and devoid of timber. It is drained by the Brazos, North Wichita and South Wichita Rivers and tributaries. While these streams are either dry or have very small flows during portions of the year, stockmen and farmers are able to se. cure good well water at depths varying from 30 to 125 feet. The rainfall averages 27 inches per annum and many farmers and ranch men collect large quantities ot water in cisterns and tanks.

The soil varies from black to chocolate and sandy loam and is fetrile and productive when under proper cultivation. The greater portion of the land is now occupied by ranchmen, but new settlers are developing the agricultural resources, while there is a general tendency among stockmen to cultivate a large acreage of feedstuffs. Cotton and corn and the usual forage crops and grains adapted to this latitude are usually a success.

There is no opposition among stockmen to the invasion of farmers. New settlers find a welcome. Lands are quoted at $\$ 15$ to $\$ 50$ per acre, according to location and improvements.

## LAMAR COUNTY.

Situated in Northeast Texas, bordering the Red River; created in 1840 from Red River County and organized in 1841; named for President Lamar; area 903 square miles; population 46,544 in 1910 and 48,627 in 1900 . Paris, the county seat and chief city, had a population of 11,269 in 1910 and 9,858 in 1900. Deport, Roxton, Blossom, Petty and Arthur City are other important towns. It is served by the Texas and Pacific, St. Louis and San Francisco, Texas Midland. Gulf, Colorado and Santa Fe and Paris and Mount Pleasant Railroads.

The surface is gently rolling and well covered with oak, hickory and elm. The hardwood lumber industry is carried on in some sections. It is drained by the Red River on the north and the Sulphur River on the south. Numerous creeks traverse different sections. Artesian water exists in the southern part and shallow wells are secured at a depth of forty to sixty feet.

The soils along the Red River are red chocolate loam and in the valley of the Sulphur River black loam; the uplands are gray sandy loam. The rairifall approximates 35 to 86 inches per annum. The agricultural interests are impor-
tant. Live stock in connection with farming and the breeding of fine dairy cattle, horses and hogs is practiced in all sections. Creameries are located at Paris and fur nish a market for a large territory. Many dairymen ship their products to other markets in the State. A live interest is taken in borticulture and the growing of peaches, pears, plums, apples, grapes and berries occupy the attention of many of the inhabitants. poultry raising is carried on in connection with general farming.

Valuable deposits of clay for brick-making purposes are utilizer by plants at Paris and Blossom. The citizens of the county are awake to the advantages of public bighways and $\$ 300,000$ in bonds has been expended by precinct No. 1 for the construction of paved highways. Other precincts are discussing the question.

Paris, the county seat, is one of the largest inland cotton markets of Texas. The city is also a distributing point for a large territory and has many industries. Among the leading industries of the city is an implement handle factory, a folding crate factory, box factory and furniture factory, bank-fitting factory, mattress factory, broom factory, peanut factory, planing mills, creameries, candy factorles and iron works.
Improved farm lands sell at $\$ 20$ to $\$ 100$ per acre; unimproved lands are quoted at $\$ 7$ to $\$ 50$ per acre. While \& large acreage is not available for settlers, there is considerable unoccupied land in the sandy loam and timbered districts. This land is particularly adapted to the growth of vegetables and peanuts.

## LAMB COUNTY.

Situated in the Plains; created in 1876 from Bexar County and organized in 1908; named for Lieut. Lamb; area 1,021 square miles; population 540 in 1910 and 31 in 1900. Olton, the county seat, is an unincorporated town. The new Santa Fe cut-off from Coleman to Texico crosses almost diagonally from southeast to northwest.

The surface is generally level, with occasionally a basin or break, which serves to drain the land in wet seasons. It is devoid of timber, with the exception of groves planted by ranchmen. Three tributaries of the Brazos River pass through the county, but with the exception of wet seasons no water can be found. An abundance of good water for stock and domestic use exists at a depth varying from 20 to 120 feet. The rainfall averages 21.90 inches per annum.

The soils are a dark clay loam, with some sand in the central section. Ranching is the chief oceupetion, bat excellent resuits are
obtained by the few farmers who have recently settled there. All staple crops of the Panhandle, including broom corn, are successfully produced. Apples, peaches, pears and grapes are proven fruits. but are not extensively grown. Improved farm lands are quoted from $\$ 15$ to $\$ 35$ per acre; unimproved lands from $\$ 10$ to $\$ 20$ per acre.

## LAMPASAS COUNTY.

Situated near the central part of the State; created from Fannin and Bell Counties in 1856 and organized the same year; named for the Lampasas River; area 755 square miles: population 9,532 in 1910 and 8,625 in 1900. Lampasas, the county seat, had a population of 2,119 in 1910 and 2,107 in 1900. Lometa and Kempner are other important towns. The county is served by the Fouston and Texas Central and the Gulf, Colorado and Santa Fe Railroads.

About two-thirds of the area is high, rolling prairie, traversed in some portions by ranges of low mountains and hills, at the foot of which spread out broad, level valleys and coves. The timbered area embraces one-fourth to one-third, consisting of live oak, Spanish oak, post oak, mesquite, pecan, elm, hackberry and many other varieties of hardwood. It is well watered by the Colorado River. which forms the entire western boundary; the Lampasas River. Which flows for thirty-five miles through the eastern portion, and the Sulphur Fork, on which stream is situated the county seat. There are numerous creeks which flow into these rivers. There are many good springs and well water is found at shallow depths. The rainfall averages 29 inches per annum.

The soil on the prairies is a kind of black waxy, while a rich alluvial predominates in the valleys and a rich loam on the uplands. Diversified farming is generally practiced throughout all sections. The live stock industry is still important, but is confined more and more to the farms. The usual staple crops produce abundantly. Considerable fruit is grown for local consumption. A large acreage is also devoted to Irish potatoes, sweet potatoes and truck.

Lampasas County has a source of wealth in its numerous pecan trees. Large shipments of pecans are made annually. Poultry raising has also become an extensive and profitable industry. The principal fruits grown are peaches, plums, pears, apricots and ETapes.

Lampasas is noted for its sulphur springs and is becoming something of a health resort. It is a flourishing, enterprising little city. While mo extensive developments have been mede. Lampasas

County is located in the mineral district of the State and there have been located many deposits, the extent of which are not known. A strong salt vein is found at a depth of 1,500 feet near Lampasas.
There are many opportunities to new settlers. No trouble is experienced in securing lands at reasonable prices.

LA SALLE COUNTY.
Situated in Southwest Texas: created in 1858 from Bexar and Webb Counties and organized in 1880; named for Robert Cavalier Sieur de La Salle; area 1,770 square miles: population 4,747 in 1910 and 2,302 in 1900. Cotulla. the county seat and chief city, had a population of 1,880 in 1910 . Artesia, Encinal and Millett are other towns. It is served by the International and Great Northern, Asherton and Gulf and San Antonio. Uvalde and Gult Railroads.
The surface is slightly rolling. The only timber is mesquite. The county is drained by the Nueces and Frio Rivers. Good underground supply of water is found at an average depth of 150 feet. Approximately 5,000 acres of land are under irrigation, the water supply coming from the Nueces River and wells. Onions, other vegetables, fruit, alfalfa and cane are grown on the irrigated farms. The rainfall will average 18 to 22 inches per annum.

The solls of the county are mostly chocolate loam, also some black sandy. It is rich and deep. Live stock raising is the chief industry, diversified farming the second in importance. The raising of Bermuda onions in Texas was first started in this county. Cotton and corn are staple crops. Like other counties in this section, the development of the underground water supply has opened up wonderful opportunities for profitable fruit and truck growing. Figs, plums and grapes are grown in quantities surficient to prove the adaptability of climate and soil for these industries.

There is a large acreage of agricultural land available for new settlers. Improved lands are quoted at $\$ 25$ to $\$ 35$ per acre; unimproved lands from $\$ 7$ to $\$ 25$ per acre.

## LAVACA COUNTY.

Situated in the coastal plains. one county removed from the Gulf and 101 miles southwest of Houston; created in 1846 from Colorado. Gonzales, Victoria. Jackson and Fayette Counties and organized the same year; named for the Lavaca River; area 992 square miles; population 26,418 in 1910. Hallettsville, the county seat and chief city, had a population of 1,379 in 1910. Other important towns are

Shiner, Moulton, Sweethome and Sublime. It is served by the San Antonio and Aransas Pass Railroad.

The general surface is about equally divided between forest and prairie, being gently rolling or undulating, except the extreme southern portion, which is level. The prairie lands are rich black loam, a large percentage of which is in cultivation. The southern, or timbered portion, has a light gray sandy soil on a subsoil of red chocolate. It is drained by the Navidad and Lavaca Rivers and by numerous creeks, which also furnish an abundance of water at all seasons of the year. The bottom lands are covered with a heavy growth of hackberry, ash, elm, pecan, cottonwood, sycamore, wild peach and various kinds of oak. Well water is found at a depth ranging from 145 to 1,000 feet. Some artesian water has been developed.

The southern portion is devoted largely to live stock raising. The soils are adapted to fruit raising as well as to staple crops and the farms are encroaching upon the pastures. Diversified farming is practiced extensively in the northern portion. Although cotton is considered the chief money crop. with corn ranking second in importance, the growing of melons. potatoes, onions, cucumbers and other truck has proved to be very profitable. Special attention is being given to the dairying industry and the creameries are liberally patronized. Many are also interested in the swine industry. In fact, farmers are manifesting an increasing interest in the breeding of all fancy live stock. The raising of poultry and the shipping of poultry products has developed into one of the most important industries. Much time is devoted to it by farmers. Large droves of turkeys are driven to the market in the fall of the year and car load lots of dressed poultry are shipped to the great markets of the country. The rainfall varies from 37 to 40 inches per annum. It if well distributed and a complete crop failure has never been known.
The northern portion is well settled with farmers. No large bodies of land are available for colonization purposes, but there is an active movement in real estate and room for many more settlers. Land in this section varies in price from $\$ 15$ to $\$ 120$ per acre, depending largely upon location and the value of improvements. Lands in the southern portion are held at lower prices, quotations ranging from $\$ 15$ to $\$ 40$ per acre. Practically the entire county is well adapted to fruit growing, but the industry has never been dẹveloped.

LEE COUNTY.
gituated in South Central Texas; created in 1874 from Burleson creatrop, Fayette, Washington and Milam Counties and organized in 1883; named for Gen. Robert E. Lee; area 666 square miles; popuIation 13.132 in 1910 , as against 14,595 in 1900 . Giddings, the county seat and chief city, is unincorporated, but its population is estimated at 1,600 . Other important towns are Lexington, Lincoln, Tanglewood and Northrop. It is served by the Houston and Texas Central and the San Antonio and Aransas Pass Railroads.
Nearly one-fourth of the area is high rolling prairie and the remainder is heavily timbered bottoms and less densely timbered uplands. The timber is principally post oak and blackjack on the uplands and pin oak, elm, mulberry, pecan and ash in the bottoms. It is drained by the three Yeguas Creeks, with their tributaries. Good springs are numerous and the underground supply of water is reached at a depth of 50 to 200 feet. The rainfall will average 30 to 35 inches per annum.

The breeding of fine live stock in connection with diversified farming is a leading industry. Cotton is the chief crop, although considerable attention is given to the growing of Spanish peanuts, truck and other crops. Interest is growing in the dairy industry and dairy cows are proving profitable. The raising of poultry is profitable and large revenues are received by persons engaged in this industry. Although there is much good fruit land and a great variety of iruit is grown, no attempt has been made to increase the product beyond home demands.
A. large acreage of Lee County is available for new settlers. Improved farm lands are quoted at $\$ 10$ to $\$ 50$ per acre; unimproved land at $\$ 5$ to $\$ 10$ per acre.

## LEON COUN'TY.

Situatied in East Central Texas; created in 1846 from Robertson County and organized the same year; named for Capt. Alonzo de Leon; area 1,066 square miles; population 16,583 in 1910, as compared with 18,072 in 1900. Centerville, the county seat, is an unincorporated town. Oakwood, Jewett, Buffalo, Marquez, Normangee, Flynn and Leona are other important towns. It is served by the Houston and Texas Central, Trinity and Brazos Valley and the International and Great Northern Railroads.

The general surface presents an alternation of high hills of gentle ascent, with narrow valleys between and extended plateaus of level table land, all heavily timbered and traversed by numerous running streame. It has an east
front on the Trinity River for about fifty miles. Numerous tributaries flow into this streum, providing an abundance of water for all purposes. The Navasota River forms the western boundary. Underground water is found at a depth averaging thirty-five feet. The rainfall approximates 38 to 40 inches per annum. There are dense forests of hardwood on the hills and in many of the valleys. There is also considerable pine, and tne pine and hardwood lumber industries are important.

The soils of the bottom lands are divided between a light yellow and deep yellow alluvial and stiff black waxy. Chocolate, gray and red sandy loam is found on the uplands. They are very productive under proper cultivation. Cotton is the leading staple. A large acreage is devoted to corn, peas, peanuts, potatoes, melons and hay. The truck crop is a large revenue producer. Many farmers are giving attention to the cattle and swine industry and ship in car load lots to the market centers of the State. Peaches are grown extensively for marketing purposes, while all kinds of berries are produced for local consumption. Interest in the bee and honey industry is growing rapidly. The poultry industry has grown to large proportions.

Lignite is mined at Evansville and Bear Grass, in the western part of the county. Attempts ere being made to find oll and gas in the southwestern portion.

The cut-over lands, as well as the prairies and valleys of Lenn County, have proved productive. A large acreage is available for new settlers. Unimproved farm lands are quoted from $\$ 5$ to $\$ 10$ per zere; improved farm lands are quoted from $\$ 15$ to $\$ 40$ per acre.

## LIBERETY COUNTY.

Situated in Southeast Texas; formerly a municipality of Mexico from which it obtains its name: created and organized as a county in 1836; pqpulation 10,686 In 1910, as compared with 8,102 in 1900. Liberty, the county seat had a population of 980 in 1910. Other important towns are Dayton, Cleveland, Hardin, Milvid, Fuqua, Lamb, Devers, Graywood and Stilson. It is served by the Texas and New Orleans, Gulf, Colorado and Santa Fe, Houston East and West Texas, Beaumont, Sour Lake and Western and Trinity Valley and Northern Railroads.

The general surface is level prairie land. It has an abundance of pine, cottonwood, oals, ash and magnolia, and the lumber industry is important. The Trinity River Hows through the center from the north. Artesian water is found at a depth of 600 feet; shallow well
water at twenty to forty feet. The quire artificial drainage to get drainage district, covering 30,000 acres, costing $\$ 85,000$, has been established. Plans have been made for reclaiming 10,000 acres of land ity River. About 12,000 acres are under irrigation, rice being the crop grown. The rainfall a mates 45 inches per annum. and sandy loam in the timbered section to deep black loam and black waxy in the river valley and
on the prairies. Live stock raising continues to be an important in dustry. Diversified farming, fruit and truck growing are generally
practiced throughout the county and are increasing in importance. Many car loads of truck, including sweet and Irish potatoes, are Cotton and rice are leading staples. Sulphur is mined four miles south of the city of Liberty. An oil field has been developed four
miles north of Dayton. Traces of oil are found all over the county and much prospecting has been ploys a large number of men. One hundred miles of fine shell road have been constructed. Liberty County is inviting new ing farm lands in large and small tracts at $\$ 10$ to $\$ 20$ per acre. Lands which have been improved are

LIMESTONE COUNTY. Situated in East Central Texas; created in 1846 from Robertson
County and organized the same year: named for limestone rock, which is found in many sections; urea 987 square miles; population
34,621 in 1910 , as against 32,573 in 1900. Groesbeck, the county seat, had a population of 1,454 in 1910 . Mexia is the chief city; population
2,694 in 1910 . Kosse, Thornton, Coolidge, Personville and Tehuacana are important towns. It is
served by three railroads- the Houston and Texas Central. TrinSouthwestern.
The surface is orten broken and
uneven without being abrupt. In uneven without being abrupt. In the southern and southeastern por-
tions are the fertile valleys of the Navasota River. In the central, eastern and northeastern portions are the high, rolling prairies,
which comprise about two-thirds of the county. The timber consists of cedar, post oak, blackjack, burr oak, pin oak, ash, hickory, of elm, hackberry and cottonwood.
About one-tenth of the area is About one-tenth of the area is
timbered.
It has a good natural drainaga,
with an abundant supply of under-
ground water at a depth of fifty feet. The Navasota River is the principal stream. The average
rainfall is approximately 35 to 40 inches per annum.
The soils are mostly black waxy prairie land. Diversified farming chief crop, but all other staple crops are produced in abundance Attention is being given to the breeding of fine cattle, horse mules and hogs. Poultry raising dustry.
There are valuable deposits of limestone rock and several quar ries are in operation. Coal has of the countyed in the eastern part During 1913 gas was discovered. near Mexia and a large and impor tant field is being developed. Improved farm lands are quoted ing to to $\$ 10$. per acre, accord from $\$ 10$ to $\$ 65$ per acre. A larg from $\$ 10$ to $\$ 65$ per acre. A large

## LIPSCOMB COUNTY

Situated in the northeast corner from Bexar in 1887; named for Judge Tips comb; area 850 square miles; pop ulation 2,634 ir 1910 , as compared with 790 in 1900 . Lipscomb, the town with a population estimated at 350 . Higgins, the chier town is an unincorporated town with a population estimated at 950 . It is Railway of Texas (Santa Fe) which crosses the southeaster corner for a distance of abou The surface is somewhat broken in the southern part, while the north is a flat, level country. The soil is a sandy loam in the south
ern half, while the northern part is black, rich and deep. Timber is scarce, the principal kind being cottonwood, which is found in the
creek bottoms. Woll Creek is the creek bottoms. Wolf Creek is the through from west to east. It has many tributaries, which give excellent drainage and an abundamce of water for stock. The average the average depth of wells 100 to 200 feet. There is an abundance of surface water at depths or
twelve to forty feet. A consider able acreage along the creek bot oms is well located for irrigation purposes, but little development The live stock industry has always been important. Diversified farming, horticulture and poultry raising are developing into profitable crop; corn, broom corn and various
Panhandle staples are successfully
grown in average years. Many large pastures are being cut into
farms and being settled by industrious tillers of the soil, who are
coming from various States of the Union.
It was demonstrated by early fanchers that apples of excellent quality, as well as peaches, plums and apricots, Many settlers are settong out small orchards and securing splendid returns. The ease with which various grains, feed, are grown and the demand for poultry and their products has encouraged
this industry, and several citizens his industry, and several attention to it. All farmers give it more or less attention.
A large area is open for new settlers. Improved farm lands are
quoted from $\$ 10$ to $\$ 25$ per aere; quoted froved lands from $\$ 5$ to $\$ 15$ per acre.

LIVE OAK COUNTY.
Situated in the west coastal Situated in the west coastan plains; creat Nueces Counties and organized the same year; named
for live oak trees; area 1,123 square miles; population 3,442 in square as against 2,268 in 1900 . Oakville, the county seat, had an estimated population of in the counthe but several surveys have been made for a line from Kennedy to Oakville and anis.
belton to Mathis. generally rolling, but there is much level land. It is timbered with mesquite and other varieties Tor Ne Nueces River flows into the county from a westerly direction. The Frio River and several small creeks contribute to the good drainage. Artesian water to 360 feet. The rainfall will approximate 26 inches per annum. The soils vary from black loam to gray sandy and black waxy. to the lack of transportation, continues to be the principal occu-
pation. Many ranchers and other pation. Many ranchers and other citizens are farming in a smand abundantly. Small orchards and
vinevards have been found to be vineyards have been found to be
profitable, but no effort has been made to enlarge the industry. A large number of citizens have engaged in the bee and honey ind of it. try and are making a success of of coal, iron and lead, but as yet are undeveloped. Live Oak County possesses climate and soils for naking it one or the State. Lack of rail ransportation has delayed its development.

Improved farm lands sell from $\$ 15$ to $\$ 20$ per acre; unimpro

## LLANO COUNTY.

Situated near the geographica center of Texas; created in 1856 from Gillespie and Bexar Counties
and organized the same year named for the Llano River; area 977 square miles; population 6,520 in 1910. Llano, the county seat and was unincorporated in 1900 Kingsland, Castell, Valley Spring and Graphite are other towns. It Texas Central Railroad. Low mountain ranges traverse the county, and lying between these ranges are es. The Llano covered with trees. the center from east to west, while the Colorado River forms the eastern
boundary. Numerous springs and tributaries furnish an abundance of excellent water, afford adequate drainage and number of opportunitie
It is important for its cattle inIt is important for its cattle in-
dustry. In recent years its fertile
valleys and more level sections valleys and more level sections have become occupied with indus-
trious farmers, who are producing magnificent crops of all staple as well as excellent yields of fruits and vegetables. There are yet
many large ranches on which there many thousands of head of cattle, sheep and goats, but these ranches now occupy the rougher portions and are not delaying the of the agricultural resources, meno is one of the rich mineralproducing regions of Texas. There mica, talc, garnet, ochres and magnesia. There are also rich deposits of granite and rare various colors granite exists in various colors, of small quarries are in successful operation, but lack of transporta
tion facilities and the question of rail rates to market centers have delayed full development and active work in the quarries. The iron ores are high grade, Besser
Magnetites and Hematites. The numerous and rich deposits of minerals are destined to make Llano one of the important industrial and
the state.

LOVING COUNTY.
Situated in West Texas, border ing New Mexico on the north created in 1887 from Tom Green founty and Loving; area 873 square miles; population 249 in 1910 and 33 in 1900 . There are no railroads.
The Pecos River Railway (Sants The Pecos River Railway Reeves
Fe ) has its course on the Reeves

County side of the Pecos River, which forms the western boundary. The leading occupation of the people is stock raising. A small acreage is farmed and the usual West Texas staple crops are grown. About 500 acres are irrigated from the Pecos River. Underground water exists at depths varying from 125 to 600 feet.

## LUBBECK COUNTY.

Situated in the Plains country; created in 1876 from Bexar County and organized in 1891; named for Col. Tom Lubbock; area 982 square miles; population 3,624 in 1910 , as compared with 293 in 1900 . Lubbock, the county seat and chief city, had a population of 1,938 in 1910. Slaton, Posey and Idalou are other important towns. It is served by the Pecos and Northern Texas Railroad (Santa Fe) and the Crosbyton and South Plains Railroad.

The surface is level plain, with breaks along the Brazos River and its tributaries. There is no timber. Like other Plains counties, there appears to be an inexhaustible supply of underground water, which is reached at a depth of 40 to 100 feet.

Although the rainfall approximates 22 to 24 inches per annum, great interested is manifested in the possibilities of irrigation from wells. A number of test wells have been put down and by the use of gasoline power and centrifugal pumps enormous flows of water are obtained. Continuous pumping for many hours falled to perceptibly lower the water in these wells. In the valleys of the streams there is a large acreage which is subirrigated and in these valleys alfalfa grows luxuriantly. Under ordinary farming methods, cotton, corn, wheat and other Panhandle Plains country staples are good producers. Apples, plums, pears, grapes and peaches have been grown for many years in small orchards on the ranches. The successful demonstration of irrigation from wells is encouraging the fruit industry. Many farmers are preparing to sink wells and equip for irrigation. Interest manifested in this feature indicates a large acreage under irrigation in the next few years.

Lubbock, the county seat, is becoming important as a Plains country railroad center. Homeseekers are invited to Lubbock. A large acreage is available for new settlers. Lands are quoted from $\$ 15$ to $\$ 35$ per acre.

## LYNN COUNTY.

Located in the Plains; created in 1876 from Bexar County and orGanized in 1903; named for G. W. Lynn; area 821 square miles; popu-
lation 1.713 in 1910 , as against 17 in 1900. The county seat is Tahoka, an unincorporated town on the Pecos and Northern Texas Railroad.

The mean minimum winter temperature is 25 degrees; the mean maximum sun.mer temperature in 85 degrees; the annual rainfall is 21.90 inches. It is a level Plaing country, with a gray and black sandy loam soil. Good water is obtained at an average depth of eighty feet. Ranching is the chiet industry, but diversified farming and fruit growing are claiming a larger share of the attention of the people each year. Milo maize, Kaffir corn, wheat, oats, sorghum and alfalfa are leading crops; apples, grapes and pears have been found to do well. Small patches are irrigated from wells.

The Pecos and Northern Texan Railroad crosses the county from north to south. Since the construction of this road the movement of homeseekers into this section has been heavy and a start has been made in the development of the many resources. Although prominent as a cattle county, the excellent supply of underground water offers a bright future in agricultural and horticultural lines.

Improved farm lands sell from $\$ 12$ to $\$ 20$ per acre; unimproved lands are quoted from $\$ 8$ to $\$ 10$ per acre. Large tracts of land are open for settlement.

## MADISON COUNTY.

Situated in East Central Texas; created in 1853 from Grimes, Wal: ker and Lynn Counties and organized in 1854; named for President James Madison; area 488 square miles; population 10,318 in 1910. Madisonville, the county seat, is unincorporated. North Gulch and Midway are other important towns. It is served by the Trinity and Brazos Valley, International and Great Northern and Houston and Texas Central Railroads.

A large portion is level and the remainder slightly rolling. It is well timbered with hardwood and pine. It is bounded by the Trinity River on the east and the Navasota River on the west. There are numerous small streams. The rainfall approximates 42 inches per annum. There is an abundant supply of water for stock and domestic uses.

The river bottoms have a rich alluvial soil, while the uplands are composed largely of various sandy loams. The agricultural interests are large, farms productive and profitable. The breeding of. fine live stock is one of the important features of the industry. Although there is a large acreage of fruit land, the industry has not been fully developed. Interest in frutt
growing, however, is increasing in gil sections. Figs, peaches, pears and all kinds of berries have been produced for home consumption for many years. Conditions are excellent for the development of this industry. Wild pecans are abundant in the river bottoms and furnish a source of income to many people. A number of small apiaries supply the home market with honey. The poultry industry also nets the farms a large sum of money annually.

There are deposits of lignite coal in the county, but thus far they remain undeveloped.

There is a large acreage available for new settlers. Lands are quoted from $\$ 8$ to $\$ 20$ per acre, according to location and condition of improvement.

## MAREON COUNTY.

Situated in Northeast Texas; created in 1850 from Cass and Harrison Counties and organized the same year; named for Francis Marion; area 384 square miles; population 10,472 in 1910 . Jefferson, the county seat and chief city, had a population of 2,515 in 1910 . Other important towns are Lodi, Kellyville, Lasater and smithland. It is served by the Texas and Pa cific, Missouri, Kansas and Texas and Jefferson and Northwestern Railroads.

The general surface is rolling, with much level land along the rivers and creeks and some high table land and a few ranges of hills. The soil is of a sandy character, with a clay foundation and is particularly adapted to truck farming, fruit, cotton, corn and small grains. There is a great variety of timber, both pine and hardwood. Although much of the merchantable timber has been cut away, sufficient remains to keep many small sawmills in operation. It is abundantly watered, the principal streams being Big Cypress, Black Cypress, Little Cypress and Jim Bayous. Big Cypress is navigable to the lakes in the eastern part. All streams find their way to the lakes and through them to the Red River.

Diversified farming has become of general importance throughout all sections. Cotton and corn are the leading staple crops, with a large acreage devoted to Irish and sweet potatoes, peas and various forms of truck. There are many orchards, and peaches and pears do exceptionally well. All kinds of berries are successfully giown and some horticulturists are making a success of figs. With the exception of live stock on the farms, very little attention is given to this industry.

Artesian water has been developed at a depth of 800 feet; an abundant supply of good well
water is found at much shallower depths. The rainfall of the county approximates 48 inches per annum. The soils respond very satisfactorily to fertilization. In some sections it is claimed that there is a deficiency of phosphorous, nitrogen and lime, but these are supplied in proper proportions and large crops result.

Iron ore and lignite are found in the county, the former being mined to a small extent along the Texas and Pacific and Missouri, Kansas and Texas Railroads. In the eastern part an oil field has been developed, producing oil of a gravity of 42 to 44 , but in small quantities only.

Lands are quoted at $\$ 20$ to $\$ 40$ per acre for improved farms. A large acreage of undeveloped land is available for new settlers, whicin land is quoted from $\$ 5$ to $\$ 10$ per acre.

## MARTIN COUNTY.

situated in West Texas at the foot of the Staked Plains; created in 1876 from Bexar County and organized in 1888; named for Wyly Martin; area 900 square miles; population 1,549 in 1910, as against 332 in 1900. Stanton, the county seat, is an unincorporated town. The Texas and Pacific Railroad crosses the southeastern corner. The Pecos and Northern Texas Railroad has a line surveyed from Lamesa through the northwest corner.

The surface is a gentle rolling prairie traversed, with several draws which are dry with the exception of wet seasons. The soil is a red sandy, very porous, with an occasional spot of black waxy in basins or depressions. A stunted growth of mesquite, cedar, hackberry and shin oak is common. The water supply is secured from wells of a depth from 10 to 150 feet.

The chief occupation of the people is cattle raising on ranches. Agriculture is practiced on a limited scale, but is becoming more general. Peaches, plums, apples and grapes are successfully grown in small orchards, but the industry has not been developed. The average rainfall approximates 16 to 18 inches annually. West Texas staples are produced successfully by dry farming methods in ordinary years. The abundant supply of shallow water in some sections makes irrigation exceedingly attractive and, although but few amall patches are cultivated, the development of the water supply in other sections of the State is encouraging the citizens in the beliet ihat irrigation of the rich lands of that county can be successfully practiced.

Lands are quoted from $\$ 10$ to $\$ 20$ per acre.

## MASON COUNTY.

Situated in West Central Texas, a little south of central; created in 1858 from Bexar County and organized the same year; named for Capt. Mason: area 968 square miles; population 5,683 in 1910 and 5,573 in 1900 . Mason, the county seat, is unincorporated. Fredonia, Pontotoc and Katemey are other important towns. There are no railroads, but a line has been surveyed by the Frisco and a bonus raised to aid in its construction.

The surf:ace is diversified, varying from rolling prairie to mountains. There are small bodies of timber land and many level tracts. It is drained by the Llano River, which passes through the center from west to east, and by the San Saba River, which crosses the northwest corner. These streams, with many tributaries, furnish sn excellent supply of water for all purposes. Artesian water is found at depths varying from 100 to 600 feet; surface wells are secured at forty feet. A few small tracts of land are irrigated by artesian wells. The rainfall approximates 24 to 26 inches per annum.

The soils on the uplands vary from a red to a yellow sandy loam. A rich, dark loam exists in the bottom lands. The live stock industry is prominent throushout all sections. Lack of transportation facilities has delayed development along agricultural lines, but a considerable acreage is now devoted to the raising of cotton, corn, oats, wheat and cane. Berries, peaches, apricots, grapes and plums do well.

Deposits of iron, lead and silver have been discovered, but remain undeveloped. There are also deposits of sandstone and limestone and various other minerals and building stone. Wjth the coming of railroad transportation Mason County is expected to become an active bidder for homeseekers. The natural resources are many and there is much excellent farm land unoccupied.

Improved farm lands are quoted from $\$ 20$ to $\$ 25$ per acre; unimproved lands at $\$ 5$ per acre.

## MATAGORDA COUN'TY.

Situated on the Gulf coast, sentrally located between the mouths of the Sabine River and the Fio Grande; one of the original counties of the State, organized in 1837; named for the original municipality of Matagorda; area 1,135 square miles; population 13,594 in 1910, es compared with 6,097 in 1900 . Bay City, the county seat and chier city, had a population of 3,156 in 1910. It was unincorporated in $1900^{\circ}$. Other important towns are Palacios, Blessing, College port, Matagorda and Markham. It is served by the Gulf, Colorado and

Santa Fe, St. Louis, Brownsville and Mexico and the Galveston, Harrisburg and San Antonio Rail: roads.

It is mostly level prairie, With a slight slope toward the Gulf. Matagorda Peninsula extenus in a southwesterly direction from the southeast corner for a distance of forty miles, inclosing a large body of water known as Matagorda Bay. The Colorado Fiver almost halp. the county, flowing from north to south. Caney Creek forms its eastern boundary. The Tres Palacios River crosses the western portion, flowing into Matagorda Bay. The eastern portion is well timbered with ash, elm, oak and pecan. Various hardwoods have a heavy growth in the river bottoms. Ar: tesian water is found at a depth of 550 feet. A bountiful supply of surface water is found at depths varying from twenty to forty feet.

The almost perfect level surface makes artificial drainage necessary to secure best results in agri. cultural lines in many sections. Four drainage districts, covering 240,000 acres, have been organizel and put into operation. To develop these districts bonds amounting to $\$ 508,000$ were issued. Several other drainage districts are proposed and plans being considered. Near Bay City a large dyke has been constructed along the Colorado River, thus conserving a large acreage from overflow. Although the rainfall approximates 42 inches per annum, about 55,000 acres are irrigated for the growing of rice. The irrigation systems cover approximately 75,000 acres of land.

The soils vary from sandy loam to black hog wallow. The Caney Creek Valley is exceptionally rich and productive, this soil being mostly alluvial and is very deep.

Formerly a leading stock-raising county of the State, its broad prairies being occupied by ranchmen, it is now developing its rich agricultural resources and stock is confined to the farms. The ease with which all kinds of feedstuffs are grown has encouraged the breeding of fine horses, mules, cattle and hogs, and although there no longer exists the carefree life on large ranches, in point of value, the live stock on the farms exceeds the value of the stock formerly on the ranges.

One of the lines of recent development, comparatively speaking, is the production of rice, a large portion of the annual crop being marketed at Bay City, where its mills prepare it for shipment to Eastern and Northern centers, as well as for export. Cotton and corn, Texas staples, continue to be favorites with farmers, hut truck and fruit is more extensively grown every year.

On the coast the fish and oyster
industry is most important. Thousands of barrels of oysters and pounds of fish are shipped in season, these industries employing many men.
-The chief mineral deposit is oil. Two fields, one at Markham and the other at Big Hill, have become prominent as producers. Traces of oil and gas are in evidence in other sections.
The good roads question was placed before the voters in the Bay City precinct and resulted in the voting of $\$ 160,000$ in bonds for better highways. Other precincts are also taking an interest in the matter of improving highways.

Lands have a wide range in market values. Quotations vary from $\$ 12$ to over $\$ 100$ per acre. Homeseekers should find no trouble in securing a grood location at a reasonable cost.

## MAVERECK COLNTY.

Situated in Southwest Texas on the Mexican border; created in 1856 from Kinney County and organized in 1871; named for Sumuel A. Maverick; area 1,332 square miles; population 5,151 in 1910, as against 4,066 in 1900. Eagle Pass, the county seat and chief city, had a population of $3, \mathbf{5} 36$ in 1910 . It is served by the Galveston. Harrisburg and San Antonio Railroad.
The surface is generally rolling, except the narrow valley bordering the Rio Grande. Mesquite is the principal timber. A good supply of underground water exists at a shallow depth. Live stock raising on ranches is the leading occupation, except along the Rio Grande, where 1,200 acres is being cultivated in the vicinity of Eagle Pass by irrigation methods. Plans for daming the Devil's River in Fal Verde County and conducting water through canals to a large acreage in Maverick County are being discussed. The rainfall averages 21.25 inches per annum and is sufficient for the production of many crops by the use of dry farming methods.

The soils range from sandy loam on the uplands to black lands in the northeastern part of the county and alluvial soil along the Rio Grande. Among the chief crops grown are onions, truck and cotton. Irrigated lands are quoted at $\$ 75$ to $\$ 100$ per acre; unimproved from \$5 to \$25 per acre, according to location.

Bituminous coal is found in paying quantities and is mined near Eagle Pass. Fire clay deposits have been located, but remain undeveloped. Indications of gas and oil are numerous and much prospecting is being done. Eagle Pass enjoys a large international trade. being one of the chief gateways of the State.

## MeCULLOCH COUNTY.

Situated in West Central Texas; created from Bexar County in 1856 and organized in 1876; named for Gen. Ben McCulloch; area 1,100 square miles; population 13,405 in 1910. as compared with 3,950 in 1900. Brady, the county seat and chief city, had a population of 2,269 in 1910 . Rochelle, Mercury and Voca are other important towns. It is served by the Fort Worth and Rio Grande (Frisco) and the Gulf, Colorado and Santa Fe Railroads.

The surface is mainly rolling. Mesquite flats are found in the western part, rolling prairie in the southern part, while the eastern and northern parts are hilly, with valleys lying between the ranges. There is sufficient live oak, mesquite and other hardwoods for domestic purposes. Pecan trees are numerous along the San Saba River, Brady Creek and other streams. These streams furnish an abundance of water throughout the year. Water is found at depths of 75 to 200 feet. A few artesian wells are found in the southern part. A large acreage along the San Saba River and the Colorado River, which borders on the north, is susceptible to irrigation, but undeveloped. The rainfall will approximate 26 inches per aninum.

The soils are various; a deen black soil is found in the Brady Valley and along other streams. In the northwestern portion the soil is a dark chocolate. A deep, rich. black sandy loam is found on the uplands. There is some light sandy soil. but all is ferille and very productive. The live stock industry on ranches continues to be prominent, but general farming is generally practiced, with cotton as the chief crop. Various feed crops and all West Central Texas staples are produced successfully: The soil. in many sections of the county are particularly adapted to the growth of cantaloupes and melons. A few peaches are also grown.

Coal has been discovered and some prospecting done. Seventyfive thousand dollars in bond: have been issued, the procesds devoted to the improvement of public highways. This issue was voted by precinct No. 1. Other precinets. are discussing the question of better highways.

A large acreage is available for new settlers. Improved farm lands vary in price from $\$ 25$ to $\$ 60$ per acre and unimproved lands from $\$ 12$ to $\$ 25$ per acre.

## MeIENNAN COUNTY.

Situated in East Central Texas; created in 1850 from Limestone, Mibam and Navarro Counties and organized the same year; named for Neal McLennan; area 1.080
are miles; population 73,250 in o, as compared with 59,772 in Waco, the county eeat and
ef city, had a population of $26,-$
and in 1910 and 20,686 in Mart, Eddy,
gor, Moody. West. wrord, Lorena, Rlesel and Rose
other important towns. It is other important towns. It is
ved by the Houston and Texas ved by the Houston and
Kansas and
atral, Missouri, Kas cas, San Antonio and Aransas
s. St. Louis Southwestern, Texas s. St. Louis Southwestern, Texas
itral. International and Great rthern and Gulf,
ta Fe Railroads.
bout one-half of the surface is trlut one-halr of the remainder
htly rond the ren rem
el el prairie and timber land.
rdwoods of various kinds grow rdwoods of various brazos River
abundance. The Bre abundance. The Brazthe county
ws centrally through
$m$ northwest to southeast. This eam, with its various tributas, provides excellent drainage
d' an abundance of water. Arian water has been developed good water are secured at 40 to
feet. The rainfall averages 36 hes per annum.
The soils vary from black alThe solls vary from black al black xy and sandy loams on the up-
ids. All is very productive unads. All is very productive un-
cultivation, producing ge yod cultivation, of cotton, corn, oats other staples. About ${ }^{2,000}$ en reclaimed from overflow and proving exceptionally produc. Much of it is in truck and arket at Waco. Many kinds of uits grow to perfection and the rticultural interests are large dimportant. All farmers are g of the better grades of cattle gs and horses. During the last ep has been taken by live stock rmers in the construction of any silos. These insure a perd has greatly increased the inrest in dairying. The raising,
ultry and marketing of poultry deggs is one of the strong fac rs in farm industry in this sec-
re
In the vinity of Waco ere are a large number of pouly farms. Where nearly every va-
ety of bird may be found. It is timated that local markets care
$\mathrm{r} \$ 60,000$ worth of poultry and sultry products each year. There ee 2,500 colonies of bees on varion is also a factor in the general cosperity.
The citizens of various precincts ee taking a practical interest in The are also sev-
ile highway. Ther of
il hill graded
right of way, which will come into
improvement districts in the near future.
Waco, the county seat, is one of
the State's commercial centers. It is most advantageously located on the Brazos River and work is now
under way by the Federal Government to make this river navigable from Waco to the Gulf. The efty
has many large manufacturing has many large manufacturing, ments which are active bidders for trade in a wide territory. It is also an eaucate of Bavlor University being the site orer colleges.
Farm lands are quoted from $\$ 50$ to $\$ 150$ for well 10 cated improved places and properties.

## MeMULLEN COUNTY.

Situated in Southwest Texas, south of San Antonio created in
1858 from Atascosa, Live Oak and Bexar Counties and organized in 1877; named for John McMullen; area 1,180 square miles; population
1,091 in 1910 , as compared with 1,024 in 1900. Tilden, the county seat, is an unincorporated town, Crowther is an Antonio, Uvalde and Gulf Railroad crosses the northwest corner.
The surface is generally level, but is broken by a few abrupt ele-
vations. The soil is for the most vations. The soil is for the most tive. Near the water courses live oak, cottonwood, ash, elm and willow are found. The headwaters of the Nueces, Frio and San Miguel Rivers traverse the county from west to east. The rainian approximates 22 to 24 inches per in most sections at depths varying from 30 to 100 feet. Artesian
exists from 600 to 900 feet.
McMullen is first of all a ranchportation has discouraged farming, although there are many opportunities the practice of dry farming methods has been productive of splendid results. Cultivated lands, however, are increasing in acreage roads agriculture will undoubtedly attain greater prominence. Conditions are excellent for the bee and honey industry and a large number of swari
ranches.
The mineral deposits consist of lignite and clays. Traces of oil and gas are in evidence. Nevelop these resources Lands are quoted at $\$ 6$ to $\$ 25$ per acre.

MEDINA COL VTY.
Situated in Southwest
ted in Southwest Texas, joining Bexar in created in 1848 from Bexar west; created in 18 anized the same County and takes its name from the Medina River, which flows thro 1,284 me eastern portion; area, 1,2 in square miles; population in 1900 . Hondo, the county seat, is an unincorporated town. Devie, D'Hanis, New Fountain, Laville, D'Hanis, New Rio Medina and coste, Zigzag are other important towns It is served by the Galvestond Harrisburg and San Antonio and Rnternatio
The general surface is rolling prairie, broken with many courses, valleys along the water being quite the northers. The soil varies from monandy to a black waxy, the little ter predominating. There is along timber except river but there is the Menty of live oak and mesquite plor fuel. Medina River is the most important stream, merous creeks. Surface water is water at depths of twenty to eighty feet. A at depths averagreach a supply at dese wells do ing flow. The rainfall average 26 to 27 inches per annum.
The leading occupation of the people is There are many large ranches on which thousands of head of cattle, sheep and goats graze, cont ditions being welstry. Along the live stock there are many farmer who are producing cotton, cornoats and forage crops. A few ir rigate small orchar wells and streams, but the question of irrigation was not important until capitalists develop natered and started to collect the ural reservirs Medina River drainage basin, covering is in process miles. Today there of the largest of construction systems in the Southirrigation
west, which, when completed, will furnish water for 60,000 acres. $\$ \$ 0.000,000$. One thousand acres of pecans are being set out on this pecans (For a more complete description see
and drainage. Among the natural resources are Among the nats of lignite, limestone and sandstone. There are traces of oil and sa places. the completion of the $\mathrm{Me}-$ dina River irrigation system, a large acreage of on the market.

Other lands are now available for homeseekers $\$ 60$ per acre.

MENARD COUNTY.
Situated in West Central Texas; created in 1858 from Bexar County and organized in 1871; named 888 square miles; population 2,707 in 1910, as compared with 2,011 in 1900 . Menard, the county seat, is an unined population of 1,000 . It is served by the Fort Worth and Rio Grande (Frisco) Railroad. with broad and fertile valleys. The San Saba River passes west to through the center from wnfailing flow at all seasons of the year, and, being fed by springs, its waters are of excelic purposes and live stiock, Two canals lead from this river in the vicinity of Menard and about 10,000 acce of irribeen brought withately 7,500 acres of this land is under cultivation. They raise on this irrigated land cotton, corn, alfalfa, wotatoes and hay, onions, sweet potat. The soils vare a sandy loam in some sections, with considerable stretches op black waxy. The rainfall per annum.
mates 24 to 26 inches Good well water is found at depths ranging from twenty to sixty feet.
Menard leading live stock sections of Texas. It received its first railTexas. in the early part of 1911 . Since farming has increased. Many large pastures have been opened or settlement and new homeseekers are assisting in developing the agricultural resources. ther building rock, which is quarried for local use. So
clay is also found.
clay is also found. Land in the irrigated sect acre There is a large acreage of be purchased form $\$ 10$ to $\$ 20$ per acre. The rainfall is sufficient in ordinary years to grow

MIDLAND COUNTY.
Located in West Texas in the Located in created in 1885 from Tom Green County and organized the same year; namare miles; popution; area 972 square mios against lation 3,464 in Midland, the county seat and chief city, had a populaseat and 2,192 in 1910 . It is served
tion of the Texas and Pacific Railroad.
by

Its surface is level, some of it almost a perfect plain, but slightly rolling in some sections. It is estimated that 90 per cent of the county is tillable, but a greater portion of it is used for grazing purposes. The soils are of a red and dark loam nature with a clay foundation. Native grasses grow Iuxuriantly and this fact has made it one of the leading live stock counties of the State. There is very little timber and no rivers or creeks. An abundant water supply, however, is found at depths ranging' from forty to eighty feet. The rainfall approximates 13 to 15 inches per annum. This is well distributed and by the practice of dry farming methods good yields of West Texas staple crops are secured.

Late in the fall of 1911 at a depth of 121 feet an almost inexhaustible supply of water was tapped near Midand. A twenty-four-inch well under gasoline power developed a flow of 2,000 gallons per minute for a period of sixty hours without perceptibly lowering the water. This demonstration of the water resources caused great interest in irrigation possibilities, not only in Midlans, but in all adjacent counties, and since that date several other wells have been brought in. Midland County, without irrigation, has demonstrated that it is in the fruit belt and that dry farming methods produce good crops of West Texas staples. Under irrigation the future of the county seems secure. Since the development of irrigation possibilities the price of lands in the immediate vicinity of the well referred to have advanced. Good land, howpver, can be had at quotations of $\$ 10$ to $\$ 25$ per acre.

## MILAM COTNTY.

Situated in Central Texas; a former municipality of Mexico, organized as a county in 1836 and named for Benjamin $R$. Milam; area 1,044 square miles; population 36,780 in 1910. Cameron, the county seat and chief city, had a population of 3,236 in 1910. Rockdale. Thorndale, Buckholts, Burlington, Gause, Milano and Ben Arnold are other important towns. It is served by the Gulf, Colorado and Santa Fe, San Antonio and Aransas Pass and International and Great Northern Railroads.

The surface is generally level, but sufficiently rolling for good drainage. It is about equally divided between forests and prairie. The southeastern portion is covered with post oak and blackjack, with sandhills of moderate elevation covered with a growth of hickory and red oak. Various kinds of hardwoods grow along
the streams in sufficient quantity to supply several hardwood mills with raw material. The Brazos River forms the eastern boundary and Little River traverses the center from west to east. Elm and Pond Creeks in the northern portion and Brushy and San Gabriel Creeks in the southern portion are all considerable streams.

The soil of the prairie is black, tenacious lime earth; of the river bottoms a dark, stiff chocolate alluvial. In parts of the timbered uplands is found a shallow gray loam, with a clay foundation, and on others a deep white sandy land. These lands taken as a whole are noted for their fertility. The dark and mellow ground around Cameron, Rockdale and in many other places has been found specially adapted to fruit and truck growing. The average aepth of wells is twenty-five feet. The average rainfall is 38 inches per annum. The agricultural interests are large. Cotton is the leading crop, although all staples are successfully grown. Truck farming is prominent and many car loads of tomatoes and other truck are shipped annually. Elberta peaches, plums, pears and pecans are also shipped in car load lots. Live stock raising is prominent only in its connection with farming. There are 3,500 swarms of bees in the county, which are producinglarge annual revenues to those who are engaged in the industry. Much attention is given to the raising of poultry and the shipping of poultry prducts.

Valuable deposits of lignite coal exist and are mined at Rockdale and Coaldale.

Milam County has constructed twenty miles of paved highway and 150 miles of graded highway. This was accomplished by assessing a special tax for road purposes.

An improvement district, covering 4,000 acres on Little River, has been organized and $\$ 18,500$ in bonds expended in protecting this area from overflow.

Gas has been discovered near Rockdale.

Milam is one of the leading agricultural counties of the State. Improved farm lands are quoted from $\$ 25$ to $\$ 125$ per acre, depending upon location and value of improvements. Unimproved lands in the post oak country are quoted from $\$ 5$ to $\$ 15$ per acre.

## MILLS COUNTY.

Situated in Central Texas; created in 1887 from Comanche, Frown, Hamilton and Lampasas Counties and organized the same year: named for Judge John T. Mills; area 700 square miles; pop-
ulation 9.694 in 1910, as compared with 7,851 in 1900 . Goldthwaite, the county seat and chief city, had a population of 1,129 in 1910. Mullin is another important town. It is served by the Gulf, Colorado and Santa Fe Railroad.
The surface is rolling, with narrow valleys along the streams. There is considerable level land. There is sufficient live oak, post oak, cottonwood and pecan timber for all domestic purposes. The Colorado River forms its southwest boundary. Pecan Bayou, Blanket Creek and tributaries of the Lampasas River furnish good drainage and an abundance of water. The rainfall approximates 28 to 30 inches per annum. Underground water is found at depths ranging from 50 to 150 feet. The altitude of the councy seat is 1,600 feet; the river valleys are 300 feet lower.
There is a great variety of soil from rich alluvial in the river bottoms to black waxy on the prairies. Approximately 1.000 acres along the Colorado River and Pecan Bayou are under irrigation, cotton, corn, oats. and alfalfa being the leading crops on irrigated farms. Live stock raising is an important industry in connection with farming. A great many mules are raised for the market. Cotton is the leading crop, but all Central Texas staples produce well. Among the features of the live stock industry is the breeding of fine sheep and goats, the wool and mohair sales bringing large sums of money into the county annually. Turkeys are raised in large numbers and many car load shipments are made. This branch of the poultry industry is becoming more important each year.
Large deposits of fine lime and sandstone exist, but are practically undeveloped.
The altitude of Mills County gives it a climate in which extremes in temperature are rare. It is becoming popular among people seeking health, whose condition will not warrant living in either extremely high or extremely low altitudes. Of recent years many settlers have been attracted to the county, the majority of whom are assisting in the development of its agricultural resources.

Irrigated land is valued at $\$ 100$ per acre and up; good farm lands are quoted at $\$ 15$ to $\$ 40$ per acre and unimproved land at $\$ 10$ to $\$ 15$ per acre.

## MITCHELL COUNTY.

A West Texas county, created in 1876 from Bexar County and or: ganized in 1881; named for Asa ans Ell Mitchell; area 807 square miles; population 8,956 in $1910,2,855$ in 1900. Colorado, the county seat and
chief city, had a population of 1,840 in 1910, being unincorporated in 1900. Loraine and Westbrook are other principal towns. It is served by two railroads-the Texas and Pacific and the Roscoe, Snyder and Pacific.

The surface is slightly rolling, with much level land and few hills. The only timber is a growth of mesquite. It is drained by the Colorado River. Water is found at a depth of twenty to elghty feet. Small truck patches are irrigated from the Colorado River and from wells. The rainfall has averaged 20 inches per annum for the last eleven years.

The soil in the valleys is a close, dark loam, while the uplands are composed of sandy loam, with a clay subsoil, which absorbs molsture easily and retains it, making dry farming attractive. Live stock raising on ranches is the leading occupation in the rural districts. One creamery is successfully operated at Colorado. The usual West Texas staple crops are raised. Horticultural products consist of peaches, plums, grapes, apricots and berries.

Valuable deposits of salt exist and salt is produced by two plants in Colorado.
Improved farm lands are quoted at $\$ 20$ to $\$ 30$ per acre; unimproved lands at $\$ 12$ to $\$ 20$ per acre.

## MONTAGUN COUNTY.

Situated in North Texas, bordering the Red River; created in 1857 from Cooke County and organized in 1858; named for Daniel Montague; area 976 square miles; population 25,123 in 1910 as compared with 24,800 in 1900. Montague, the county seat, had a population of 284 in 1910. Bowie, the chief city had a population of 2,874 in 1910 and 2,600 in 1900. Stoneburg, Sunset Bonita, Nocona, St. Jo, Reicherville and Hardy are other important towns. It is served by the Fort Worth and Denver City, Chicago, Rock Island and Guif and Missouri. Kansas and Texas Rallroads.

The surface is undulating and about equally divided between prairie and timber. The upper cross timbers cross from north to south. The underground supply of water is found at a depth averaging fifty feet. Water for live stock is furnished by wolls and tanks in sections not traversed by streams.

The soils on the uplands are mostly sandy loam; a red clay is found in the valleys and a black sandy loam, with stretches of deep clay soil, along the streams. The rainfall approximates 32 to 35 inches per annum.
The live stock industry is important. due to the effort on the
part of farmers to improve their breeds. Several farmers are making a specialty of producing blooded cattle, horses and hogs. A large number are taking an interest in the dairying industry and creameries are operated at Nocona, Bowie and Montague. Cotton, corn, oats and wheat are staple crops. Alfalfa is cultivated to a small extent. Peaches, apples and pears are proven fruits and are raised in quantities more than surficient to supply the home demand. Grapes are cultivated by a number of German and Italian farmers and wine is made for local consumption. Several tarmers in the county are becoming prominent because of their success in the poultry industry.

Montague County is paying attention to the road question and her highways are being constantly improved. A special road tax of 15 c on the $\$ 100$ is used for this purpose.

There are a number of large ranches and much available land for new settlers. The movement in real estate is healthy and improved farms can be readily purchased. Improved farm lands are quoted at $\$ 20$ to $\$ 50$ per acre; unimproved lands at $\$ 10$ to $\$ 15$ per acre.

## MONTGOMERY COUNTY.

Situated in Southeast Texas; created in 1837 from Washington County and organized the same year; named for Gen. James Montgomery; area 1,066 square miles: population 15,679 in 1910 . Conroe, the county seat, had a population of 1,374 in 1910. Willis, Montgomery, Fostoria, Magnolia and Dobbin are other important towns. It is served by the International and Great Northern, Gulf, Colorado and Santa Fe, Trinity and Brazos Valley, Houston East and West Texas and the Peach River and Gulf Railroads.
The surface consists of flat prairie land and gently rolling plains, with a few feet slope. The creeks and San Jacinto River flow in small dichlike channels, bordered by several broad flats or bottoms. The courses of the streams are very winding. The soils along the streams are alluvial deposits; along the uplands sandy loams. The natural growth of timber consists largely of pine. some oak of various kinds and some hickory and magnolia. A large portion is black waxy prairie land, all of which is in cultivation.
The live stock industry is conducted along improved lines by farmers who are engaged in diversification. The agricultural interests of the county are very important. Cotton is the chief crop,
but the growing of corn, sweet potatoes, Irish potatoes, peanuta and fruits produces annually a large revenue. Near Willis there is found some excellent tobacco land, but this industry has not been fully developed. Many car loads of cabbage and tomatoes are shipped to early market. Peaches, pears and plums are grown exten: sively. Water is abundant in all sections of the county. Artesian water is found at a depth averaging 1,000 feet ; good well water at forty to eighty feet. The rainfall averages 42 inches per annum.

Iron ore has been found in the county, but the deposits have not been developed. There are also deposits of good quality brick clay.

There are many opportunities for homeseekers and lands may be purchased in any size tract to sult. Improved lands are quoted from $\$ 10$ to $\$ 30$ per acre; unimproved lands from $\$ 5$ to $\$ 15$ per acre.

## MOORE COUNTY.

Situated in the northern part of the Panhandle; created in 1876 from Bexar County and organized in 1892; named for Commodore $E$. W. Moore; area 885 square miles; population 561 in 1910 and 209 in 1900. Dumas, the county seat, is un unincorporated town. It is served by the Enid, Ochiltree and Western Railroad.

The west. north and northeastern parts are level, while the southern part is hilly with rich valleys and many draws and breaks. With the exception of a stunted growth of mesquite and other hardwoods around the river bottoms, there is no timber. It has a natural drainage through the Big Blue and Canadian Rivers. There is an abundance of water for live stock and domestic purposes. The underground supply is reached at an average depth of 240 feet. The rainfall will average approximately 21 inches per annum. Although live stock raising is the chief industrx agriculture is slowly encroaching on the cattle range and all staple Panhandle crops, including alfalifa, are successfully grown in average years. Broom corn is becoming one of the profitable crops. Sorghum ranks high as a forage crop.

A large acreage is avallable for new settlers. Many are entering the county and assisting in the development of its agricultural resources. Lands are quoted from $\$ 10$ to $\$ 20$ per acre.

## MORRIS OOUNTY.

Situated in Northeast Texas; created in 1875 from Titus County and organized in 1876; named for W. W. Morris; area 278 square
miles; population 10,439 in 1910 and 8,220 in 1900. Daingerfield, the county seat and chiel city, is an unincorporated town. Naples, Omaha and Cason are other towns. It is served by the Missouri, Kansas and Texas and the St. Louis Southwestern Railroads.

The surface is generally level excepting the extreme southern portion, where it is rolling and hilly. It is well timbered with pine, white oak and various other hardwoods. The lumber industry continues to be an important factor in the prosperity of the people. The Sulphur River bounds the county on the north and Big Cypress Creek on the south. These streams, with several tributaries, furnish an abundance of water throughout the year. Good well water is found at an average depth of thirty feet. The rainfall approximates 38 to 42 inches per annum.
The soll varies from a rich alluvial in the bottom lands to sandy in the uplands and chocolate colored land in the more elevated portions. Diversified farming is generally practiced throughout all sections, with cotton and corn as the leading staple crops. A large acreage is devoted to Irish potatoes, watermelons, cantaloupes, cabbage and other truck. Peaches are grown for the market and produce a large revenue to orchard owners.
Within the last few years farmers have devoted a great deal of attention to the raising of fine horses, mules and hogs. Many splendid blooded and graded animals are found in all sections. All farmers and many others are interested in raising poultry and large shipments of poultry products are made to local and other markets.

Among the natural resources are found coal, iron and brick clay. These deposits have not been developed. Large purchases of land in the iron ore belt have recently been made anc activity in the iron industry is looked forward to.

Lands are quoted at $\$ 10$ to $\$ 30$ per acre. Some unimproved lands may be had for less money.

## MOTLEY COUNTY.

Situated partially on the Plains and partly in the Panhandle country; created from Bexar County in 1876 and organized in 1891; named for Dr. William Motley; area 984 square miles; population 2,396 in 1910 and 1,257 in 1900. Matador, the county seat, is an unincorporated town. It is reached by stage from Paducah, in Cottle County, and from Floydada, in Floyd County. The Quanah, Acme and

Pacitic Railroad is building across the county in the direction of Plainview.
The surface is broken and rolling, with considerable level land between the breaks. The soll varies from a stiff black to a sandy, underlaid with clay and red clay soll. There is sufficient mesquite, hackberry and cottonwood por domestic purposes. The North, Middle and South Pease Rivers rise at the foot of the Plains and run easterly through the county, furnishing an outlet for many smaller creeks. The underground supply of creeks. The underground supply of water is good and can be obtained at depths of 60 to 150 feet. The average rainfall approximates 24 inches per annum.

Live stock raising is the principal occupation of the people, although there is considerable acreage under cultivation. Cotton, alfalfa and the usual Panhandie staples are grown. Small orchards of peaches, apples, plums and other fruits demonstrate the fact that fruit growing could be profitably engaged in.
There is a large acreage to be obtained by homeseekers. Raw lands are on the market from $\$ 10$ to $\$ 15$ per acre; cultivated lands are quoted at somewhat higher prices.

## NACOGDOCHES COUNTY.

Situated in East Texas, one county removed from Louisiana; an original county of Texas, organized in 1837; named for a tribe of Indians; area 962 square miles; population 27,406 in 1910, as against 24,663 in 1900. Nacogdoches, the county seat and chief city, had a population of 3,369 in 1910 and 1,827 in 1900 . Appleby, Garrison, Cushing, Sacul, Traweek, Mahi, Melrose, Chireno, Swift, Martinville. Attoyac and Wodin are other towns. It is served by the Houston East and West Texas, the Texas and New Orleans, the Nacogdoches and Southeastern, the Cairo and Northern, the Angelina and Neches River and the Durham Rallroads.

The general surface is broken, With hills and hollows. The valleys and plateaus have level, fertile soll. Springs and creeks are numerous.

The solls in the valleys are a rich, dark, sandy elluvial with some red loam; on hills and uplands, gray sandy, red sandy and red stiff land in varieties of shades and quantities. Orangeburg clay and Orangeburg sand are pound in large and small areas. There is also considerable Lurkin clay and Norfolk sandy loam. The Orangeburg soil has been pronounced by experts as particularly adapted to
the growth of cigar tobacco, and the industry. while not large, is gradually making a place for itself. The agricultural interests are large. Cotton is the chief money crop. Attention is given to peaunts and other forage crops. Peaches and plums are the chief horticultural product. . The live stock industry is conducted on the farm and contributes largely to the material prosperity of the people.

The county is well timbered, and the pine and hardwood jumber industries employ a large number of men.

Artesian water exists at a depth averaging 500 feet; surface water at much shallower depths. The rainfall approximates 48 inches.

Valuable defosits of lignite exist and a mine has been worked near Garrison. There is also an abundance of valuable clays.

There is a large acreage available for new settlers, and lands (an be purchased at various prices, ranging from $\$ 10$ to $\$ 50$ per acre for improved land and \$3 to \$10 per acre for unimproved land.

Nacogdoches was one of the first settlements in Texas. The famous old Stone Fort that stood fronting on the public square was probably erected in 1760 . In the early days of the Republic the town of Nacogdoches was the scene of many historical events of interest.

## NAVARRO COUNTY.

Situated northeast of Central Texas; created in 1846 from Robertson county and organized the same year: named for Jose Antonio Nevarro; area, 1,136 square miles: population 47,070 in 1910, as compared with 45.374 in 1900 . Corsicana, the county seat and chief city, had a population of 9.743 in 1910 and 9.31 s in 1900 . Kerens, Dawson. Blooming Grove, Frost. Rice and Powell are other important towns. It is served by the Trinity and Brazos Valley, Houston and Texas Central und St. Louis Southwestern Railroadis.

The surface is generally level, the prairies rolling and broken only by valleys that lie between low hills. Many large streams traverse the county, and along these streams is lound a great variety of hardwood. There are jarge areas of black waxy land and . considerable sandy loam, both of which are very productive. A large area lies in the grain belt, but cotton is one of the leading crops. Artesian water exists at depths ranging from 2,500 to 2,800 feet, while a good supply of well water is found at depths of 20 to 40 feet. The rainfall approximates 35 to 37 inches per annum.

The agricultural interests grow more important each year as farm-
ers apply scientific methods. Cotton, corn, alfalfa, small grains peanuts and other forage and seed crops are good producers.

The horticultural products include peaches, grapes and plums. Watermelons and cantaloupes are shipped in carload lots. Truck farming is extensively practiced. The raising of fine cattle, horses, mules and hogs is conducted on the farms.

There is an abundance of lignite limestone and brick clay. An oil field has been developed near Corsicana, and that city has become prominent because of its oil refin. eries and its natural gas.

While there are no large tracts of land on the market, both improved and unimproved lands are available for $n \in w$ settlers. Improved lands vary in price from $\$ 20$ to $\$ 100$ per acre, the $\$ 100$ per acre land generally lying on good roads convenient to a good market, in a ligh state of cultivation, with good buildings situated thereupon. Unimproved lands are quoted at $\$ 10$ to $\$ 15$ per acre.

## NEWTON COUNTY.

Situated in East Texas, bordering Louisiana; created in 1846 from Jasper County and organized the same year; named for Sergic. Newton; area 903 square miles; popujation 10,850 in 1910 , as against 7,282 in 1900. Newton, the county seat, is an unincorporated town with a population estimated at 1,500. Hartburg. Ruliff, Dewey, Call, Bleakwood and Adsul are other towns. It is served by the Orange and No:thwestern (Frisco), Gulf, Colorado and Santa Fe, Jasper and East Texas and the Kansas City Southern Railroads.
The southern half is level, while the northern half is hilly and slightly broken. Practically 97 per cent is covered with a heavy growth of pine, and hardwood and lumbering is the chief industry. The Sabine River forms the eastern border, while many creeks traverse all portions. The southern part has many marshes and is in need of drainage.

Cut-over lands are beeing occupied by farmers and truck growers, who are making a success. Fruits of various kinds are produced, but the industry has not been developed beyond furnishing the supply for home consumption. All forms of truck thrive, but no effort has been made to supply cutside markets. Cotton, ribbon cane, sorghum, potatoes, peanuts and rarious other East Texas staples grow readily, and the rarmer is rapidly occupying the land as the lumberman leaves it. There is considerable range in the county, and the live stock industry is important.

Iron ore is found in various parts, but no efforts have been made to devejop the deposits. There are also traces of onl, and some prospecting has been done.
The rainfall approximates 40 inches per annum. Lands vary in price from $\$ 5$ to $\$ 20$ per acre. New gettlers are coming into the county and developing its agricultural resources. A large acreage is available.

## NOLAN COUNTY.

Situated in Central West Texas; created from Bexar County in 1876 and organized in 1881; named for Nolan Expedition: area 828 square miles; population 11,999 in 1910 and 2,611 in 1900. Sweetwater, the county seat and chief city, had a populatoin of 4,176 in 1910 and 670 in 1900. Roscoe and Hyltom are other towns. It is served by the Texas and Pacific, Pecos and Northern Texas (Santa Fe), Kansas City, Mexico and Orient and the Roscoe, Snyder and Pacific Railroads.

The chief topographical feature is the high, rolling uplands, depressed at intervals into broad, jevel valleys, and occasionally spreading out into extended, nearly level plateaus. About one-halr the area is covered with a scrubby growth of mesquite and post oak. Walnut, cottonwood, hackberry and elm are found a long the streams. Sweetwater, Bitter, Silver, Champion, Valley, Fish, Kildagan and Mulberry Creeks rurnish an abundance of water for stock. There are many springs, wells and reservoirs which supplement the stock water supply. The rainfall will approximate 24 inches per annum.

The soil is ehiefly a reddish, dark loam, interspersed with areas of deep, black waxy lime land. For many years it has been one of the chief live stock raising sections of the State. The live stock interests are very extensive, but are in no way interfering with the development along agricultural lines.

Diversified farming is attracting a great deal of attention and is successfully practiced in the vicinity of Sweetwater and other market points. Cotton. corn, Kaffir corn, soighum and maize are the leading field crops. But little attention is given to the production of frult, although many small orchards have demonstrated that fruit can be successfully grown.

Ranchmen of late years have devoted a great deal of time and attention to the improvement of their herds, and many blooded and graded animals are now found in all sections.

Sweetwater is one of the leading railroad centers of Central West Texas and is becoming prom-
inent as an industrial and commercial city. The number of manufacturing industries is being constantly increased and the population of the city is growing rapidly In the vicinity of this city are found large deposits of sulphate of lime, which is manufactured into cement plaster.

There are large aeposits of fine building stone and road material. Leading citizens are devoting a great deal of attention to spreading information relative to the importance of the county's many natural resources and are inviting homeseekers. Large quantities of excellent land are on the market in various size tracts, and may be purchased at moderate prices.

## NUECES COUNTY.

Situated on the southwest Gulf coast; created in 1846 from San Patricio County and organized the same year; named for the Nueces River. Its area was 2,976 square miles until Jim Wells County was formed in 1911, when it was reduced to 2,120. In 1913 Kleberg County was taken out of this area. reducing Nueces' area to 1,108 . The population of Nueces County, in its original form, was 21,955 in 1910. Corpus Christi, the county seat and chief city, had a population of 8.222 the last census. Other important towns are Robstown, Bishop, Rabb and Driscoll. It is served by the St. Louis, Brownsville and Mexico, Texas Mexican (Mexican National) and San Antonio and Aransas Pass Fallroads.

The general description which follows includes Kleberg County: The surface is generally level, with a gentle slope towkard the Gulf and Corpus Christi Bay. The Nueces River forms the northeastern boundary. Santa Petronita, San Fernando and Gerprudis Creeks. together with other smaller streams, complete the drainage system. Some of these streams are dry through portions of the year. Artesian water exists at depths varying from 400 to 1,100 feet; good well water in the eastern section is found at shallower depths. Water for live stock and domestic purposes in some sections is impounded and collected in cisterns. The rainfall averages 26.7 inches per annum. About 1,700 acres along the Nueces river are under irrigation, onions, cabbage. beans and other truck being grown.

The solls vary from a dark sandy loam to a light sandy with occasional stretches of black wasy. Under ordinary rainfall and proper cultivation cotten and corn, together with many varieties of forage crops. yield above the state. average. The truck industry has
become very important and many carloads of cabbage and onions are shipped.

The live stock industry continues to be very prominent. Or late years ranchmen have paid special attention to the improvement of their stock and there are many thousand head of blooded and well graded cattle in the large pastures.

In connection with diversified farming there are many taking an interest in the production of figs grapes and other fruits. The keeping of bees on the farm is becoming a profitable side line. Several have gone into the industry on a large scale. It is estimated that 50,000 pounds of honey are produced annually.

Lands are quoted at $\$ 25$ to $\$ 50$ per acre for well improved farms; unimproved lands are quoted at $\$ 15$ to $\$ 25$ per acre.

Corpus Christi has made rapid growth during the last decade. Situated on Corpus Christi Bay, the city is not only important as a summer and winter resort, but because of its commercial possibilities. A light draft channel connects the city with deep water and it is belleved that in the near future the city will become a deep water porit. The city is important as a wholesale and industrial center and for its large fish and oyster business; also as a summer resort. Kingsville, in the western portion of the county, is an important railroad division point and is growing rapidly.

## OCHILTRREE COUNTYY.

Situated in the Panhandle, in the northern tier of counties; created from Bexar County in 1876 and organized in 1889; named for W. B. Ochiltree; area 864 square miles; population 1,602 in 1910 and 267 in 1900 . Ochiltree, the county seat, is an unincorporated town. The Enid, Ochiltree and Western Railroad has a line surveyed from Dalhart through the county seat.

The surface consists of level plains, covered generally by buffalo and mesquite grasses. Wolf Creek is the only stream. Cottonwood and hackberry grow along its banks. The soll is a black and gray sandy loam from 14 to 25 inches deep and very productive. It is estimated that 95 per cent of the land is tillable. Stock raising on ranches is the chief occupation of the people. The agricultural interests, however, are claiming more attention and each year there is a large increase in the acreage under cultivation. Wheat is an important crop, the yield approximating $1,000,000$ bushels. All varieties of feedstuffs are produced, as well as various iruits, such as
apples, plums, peaches and berrien The underscound water supply reached at depths varying from 60 to 300 feet. It is abundant and pure. The rainfall of about 25 inches comes largely in the grow. ing months and with good plowing and proper attention to conservation methods all crops are grown with profit.

Lack of transportation has delayed development. The opportun. ities for establishing good farms are many.

## OLDFAM COUNTTY.

Situated in the Panhandle, bordering New Mexico; created in 1876 from Bexar County and organized in 1881; named for Williamson S. Oldham Sr; area 1,470 square miles; population 812 in 1910 and 349 in 1900. Tascosa, the county seat, is an unincorporated town. Adrian, Vega and Wildorado are other towns, It is served by the Fort Worth and Denver City and the Chicago, Rock Island and Gulf Railroads.

The northern portion is broken and hilly, while the southern half is largely level plains. It is almost timberless, there being only a small growth of cottonwood. The South Canadian River flows through a little north of center. This stream, with its numerous tributaries, furnishes an excellent drainege. The supply of water, particularly in the vicinity of the streams, is abundant for stock purposes. The underground supply of water is found at a depth averaging 360 feet. The rainfall approximates 21 inches per annum.

The soils on the plains vary from a light sandy to a chocolate loam, with a dark sandy loam in the valleys. Stock raising is the chlef industry. Farming is practiced in a limited way, the usual Pannandle staples being grown. Very lítle improved land is on the market. Lands are quoted at $\$ 10$ to $\$ 35$ per acre, according to location. Small orchards of apples, pears and plums have been producing for many years, but interest in horticulture has thus far been confined to growing for home supply. A fine grade of sandstone is quarried to a limited extent. There are also indications of oil and gas.

## ORANGR COUNTY.

Situated in Southeast Texas, bordering the State of Louisiana; created in 1852 from Jefferson County and organized the same year; named for orange frult; area 392 square miles; population 9,528 in 1910 and 5,905 in 1900 . Orange, the county seat and chief city, had a population of 5,527 in 1910 and 8,835 in 1900. There are
a number of small towns and sawmill points along the various railroads. It is served by the Texas and New Orleans, Orange and Northwestern (Frisco), Kansas City Southern and the Gulf, Colorado and Santa Fe Railroads.

The surface is level and heavily timbered with pine, gum and cypress. It is bordered on the east by the Sabine River and on the west by the Nueces River. Artesian water is found at a depth of 850 feet; surface water at 20 to 50 feet. Development work in reclalming lowlands has made some progress. There is considerable need of drainage during wet seasons in some sections. The rainfall averages 45 inches per annum.

Sandy loam, black and gray subsoil, is found throughout. Considerable attention is beeing given to raising hogs and cattle. Aitnough iumbering is the leading inaustry, cutover lands have proved to be very productive of corn, potatoes and vegetables. Rice is the chief crop, the acreage averaging about 15,000 annually. Of recent years a start has been made in the development of fig and orange orchards and each year sees an increased acreage of these fruits. The poultry industry is also receiving attention from farmers and others in the vicinity of Orange.

Oll has been found in large quantities. A natural gas field is 10 cated about seven milem west of Orange.

Orange has a number of manufacturing industries, principally lumber mills, box factories and other woodworking concerns; also a yellow pine shaving paper mill in this city. Since its establishment its capacity has been doubled, the output being a very fine grade of wrapping paper. Orange County citizens are becoming interested in good roads.

Oll has been discovered in paying quantities and the field is being developed.

A bond issue of $\$ 143,000$ has been voted by the people for the purpose of supplementing an equal sum of money appropriated by the Federal Government for a 25 -foot channel from the mouth of the Sabine River, through Sabine Lake, to connect with the BeaumontPort Arthur ship channel. Previous to the beginning of the work on this channel Orange has enjoyed light draft navigation, small vessels in the Mexican trade docking at Orange and taking on part cargo of lumber for foreign ports.

Good farm land is quoted at $\$ 20$ to $\$ 30$ per acre and unimproved land at $\$ 15$ per acre.

PALO PINTO COUNTY.
Eituated in North Texas, one county removed from Fort Worth; created in 1856 from Bosque and Navarro Counties and organized in 1857: named for the Palo Pinto River; area 971 square miles; population 19,506 in 1910 as compared with 12,291 in 1900 . Palo Pinto, the county seat, is an unincorporated town. Mineral Wells, the chief city of the county, had a Fopulation of 3,950 in 1910 and 2,048 in 1900. Gordon and Strawn are other towns. It is served by the Texas and Pacific the Weatherford, Mineral Wells and NorthWestern and the Gulf, Texas and Western Railroads.

The surface is mountainous, with valleys between the ranges. There is also some very fertile prairie land. The Brazos River takes a tortuous course across the northern and northeastern sections, presenting about 300 miles of river front. This stream, with its numerous tributaries, furnishes an abundance of water. The underground supply of water is reached at various depths varying from 25 to 300 feet. The rainfall approximates 32 inches per annum. About one-fourth of the area is covered with post oak and cedar. The valleys of the Brazos River and its tributaries are devoted to diversified farming. Much of the upland is also being placed under cultivation.

The soil in the valley is sandy, of a red character and very fertile; prairie land solls are black. Live stock raising, formerly the leading industry, and still important, is gradualiy giving way to invading farmers. The breeding of fine live stock is generally conducted as a side line by every farmer. Cotton is the leading crop. but all West and North Texas sta: ples do well in ordinary years. Individuals are paying considerable attention to the growing of pears, peaches, grapes, plums and berries. The home market is generally supplied with iruit from Palo Pinto orchards. The poultry industry is proving profitable to many. Attention is being given to the ralsing of improved stock and large quantities of poultry and poultry products are shipped to the mariet annually.

Bituminous coal is mined at Strawn, Lyra and Mingus. Sandstone and limesione of good quality are quarried and used for building purposes. Brick and fire clay deposits have been located and partially developed. A natural gas field has been located six miles north of Palo Pinto, but thus far development has been small.

The mineral waters are numer-
ous in variety and famous for their medicinal qualities. Immense quantities are shipped from Mineral Wells and other places. Mineral Wells is one of the most noted health resorts in the Southwest.

A large amount of good farm land is available for new settlers. Raw lands ar quoted at $\$ 5$ to $\$ 15$ per acre; improved farm lands are on the market at $\$ 20$ to $\$ 50$ per acre. Many new settlers are going into Palo Pinto County and assisting in the development of its many natural resources.

## PANOLA COUNTI.

Situated in East Texas; created In 1846 from Harrison and Shelby Counties and organized the same year; named for an Indian tribe; area 814 square miles; population 20,424 in 1910 and 21,404 in 1900. Carthage, the county seat and chief city of the county, is unincorporated, but has a population estimated at 2,000 . Other important towns are Beckville, Gary, Woods, Clayton and DeBerry. It is served by the Texas and Gulf (Santa Fe) and the Timpson and Henderson Failroads.
The surface varies from level to rolling, with hills along the streams. Pine and hardwood lumber are important industries. It is drained by the Sabine River, Murbaul Bayou, Martin's Creek, Sacagge Bayou and Irons Bayou. The natural drainage is good. An abundant supply of underground water is found at a depth of 15 to 20 feet. The rainfall approximates 48 inches annually.

The solt is largely sandy loam, adapted to the growth of fruit. Bottom land solls are dark and very productive. Diversified farming, including the production of truck and fruit, is the leading occupation in the rural communities. Cotton is the chief crop among staples. Peaches are the leading horticultural product. Diversified farming is supplemented by the breeding of graded horses, mules and other domestic animals. Some attention is given to apiculture and to poultry.

Deposits of brick clay extst and are utilized by a company in Carthage. Traces of oil are also found. Although rich in the natural resources which make a prosperous country, the many opportunities have been neglected until of recent years. At the present time there is a general awakening and the outlook for rapid development in all lines is bright. This makes Panola County especially attractive for homeseekers and others who are looking for safe inrestments. Improved farm lands are quoted at $\$ 10$ to $\$ 20$ per acre: unimproved at $\$ 5$ to $\$ 10$ per acre.

Thousands of acres of good land are avallable for settlement.

## PARKER COUNTY.

Situated in North Central Texas. created In 1855 from Navarro and Bosque Counties and organized in 1856; named for one of the early settlers; area 888 square miles: population 26.331 in 1910, as compared with 25,823 in 1900 . Weatherford, the county seat and chiet city, had a population of 5.074 in 1910 and 4,786 in 1900. Other important towns are Springtown, Millsap, Poolville, Aledo and Peaster. It is served by the Texas and Pacific, the Gulf, Colorado and Santa Fe, the Weatherford and Northwestern and the Gulf, Texas and Western Railroads.

The southern portion is rolling prairie, broken in the extreme southern part by the Brazos Valley. The northern portion has collsiderable level land and some hills. It is traversed by the Clear Fork of the Trinity River and numersus tributaries. There is an abundance of water for domestic ans live stock purposes. Artesian water exists at a depth of 480 feet; surface water at a much shallower depth. The rainfall averages 35 inches per annum.

Nearly every character of soil can be found, from the gray sandy of the timber land to the rich alluvial of the river bottoms and the black waxy, blacy sandy and choc-olate-colored land on the prairles. Cotton is the principal crop, but all other staple crops thrive. The horticultural products consist of peaches, pears, plums and apples. These are grown in sufficient quantity to supply the home demand. The poultry industry is carried on by most farmers. Live stock raising in connection with diversified farming is an important industry. Considerable interest is manifested in dairying, and a creamery at Weatherford is successfully operated. Interest is increasing in the bee and honey industry.

Valuable deposits of coal and building stone are found in the county, but remain undeveloped. Potter's clay and brick shale are found in abundance. A brick plant is located at Bennetts, and a pottery plant at Weatherford.

A special tax of 10 c per $\$ 100$ is assessed for the construction of public roads. There are 300 miles of surfaced roads and many miles of well-graded roads.

Many opportunities are open to homeseekers. A large acreage is available for new settlers. Improved lands are quoted at $\$ 20$ to $\$ 50$ per acre and unimproved at $\$ 12$ to $\$ 20$.

## PARMER COUNTY.

Situated in the Panhandle, bordering New Mexico; created in 1876 from Bexar County and organized in 1907; named for Martin Parmer; area 873 square miles; population 1,555 in 1910 and 34 in 1900. Farwell, the county sear, is unincorporated. Friona and Bovinia are other towns. It is served by the Pecos and Northern Texas Railroad (Santa Fe).

The surface is level plain, devoid of timber. There are no streams, but a good underground supply of water can be secured at a depth averaging 300 feet. The rainfall approximates 20 inches. The soil is rich red loam, very productive when water is applied. As in the Panhandle counties, there is an undeveloped supply of underground water, which will ultimately prove a valuable asset. With this fact established, it will attract the attention of fruit growers and general farmers, who will open up a new era of prosperity.

Live stock ralsing is the chief industry of the people. Diversified farming is practiced on a small scale only. Lands are quoted at $\$ 8$ to $\$ 18$ per acre.

## PECOS COUNTY.

Situated in West Texas, generally known as Southwest Texas, one county removed from the Rio Grande; created in 1871 from Presidio County and organized in 1875; named for the Pecos River; area 5,536 square miles; population 2,071 in 1910 and 2,360 in 1900. Fort Stockton, the county seat, is an unincorporated town. Buena Vista and Sheffield are other important towns. It is served by the Kansas City, Mexico and Orient Rallroad.

The surface is generally smooth and level, especially in the northern part. In the southern part it is traversed by chains of hills, between which lie level valleys. These hills are outlying portions of the mountains in Jeff Davis County. The surface is generally covered with a stunted growth of mesquite, greasewood and other semi-arid forms of vegetation. The Pecos River forms the northern boundary. Comanche Creek, fed by springs in the foothills and by large springs at Fort Stockton, near the center, traverses the county and empties into the Pecos River. There are a number of other small creeks which are dry portions of the year.

With the exception of the Irrigation districts, one in the vicinity of Fort Stockton and Comanche Creek, and another in the northWest corner along the Pecos River, the entire county is given over to large ranches and pastures. Without irrigation it is useless to try to
farm, as the rainfall averages but 10 to 13 inches annually. Native grasses need but little moisture and during a greater portion of the year cattle do well and the live stock industry has attained great prominence.

The Comanche springs at Fort Stockton, centrally located in the county, are among nature's wonders. The flow is steady at 55,000 , 000 gallons daily, most of which is used for irrigation. Approximately 8,000 acres are watered in this section, alfalfa, grains and fruits producing heavily. Many acres of grapes were set out a few years ago and results amply prove the adaptability of solls and climate for producing perfect fruit. Pears, peaches, apples, plums and numerous other fruits do equally well. With the exception of alfalfa, it is believed that fruit will eventually be the leading crop of this section. In the northwest corner, along the Pecos River, 25.000 acres are under ditch, and 8,000 in cultivation. Water is secured direct from the Pecos River or from reservoirs which are used for the storage of flood waters for the purpose of supplementing the regular flow. The same crops are grown here as at Fort Stockton. There are also many individual well plants which are used for irrigating small tracts. The fruits of this section are hardly equaled and seldom surpassed by any section of the United States.

Irrigated lands are variously valued at $\$ 60$ to over $\$ 100$. Other lands, where obtainable, are priced at $\$ 5$ to $\$ 15$ per acre.

## POLK COUNTY.

Situated in Southeast Texas; created In 1846 from Liberty County and organized the same year; named for James K. Polk; area 1,100 square miles; population 17,459 in 1910, as compared with 14,447 in 1900. Livingston, the county seat and chief city, is unincorporated. Onalaska, New Willard, Camden, Corrigan, Moscow and Leggett are other important towns. It is served by the Houston East and West Texas, the Beaumont and Great Northern, the Missouri, Kansas and Texas, the Moscow, Camden and San Augustine and the Livingston and Southeastern Railroads. The last two lines are used mainly as lumber roads.

The general surface is undulating, rising gradually toward the center, forming a dividing ridge about equal distance between the Neches and Trinity Rivers. Ninetenths of the area was originally covered with dense forests or pine and hardwood. Much of the pine has been cut. but there still remain many millions of feet of tim-
eprod
ber, which is furnishing raw material for the operation of many large sawmills. The lumber industry employs many men and is of great importance. In all parts of the county are unfalling streams of pure water. There are many fine springs, and well water is easily obtained. The rainfall averages 47 inches per annum. About four-fifths of the area is adapted to cultivation.

The solls are divided between a deep black, lime land, the stiff Waxy lands of the river bottoms, the alluvial lands of the creeks, dark sandy soil on the edges of the bottoms, and light, thin sandy soll on the uplands. Much rich land along the rivers and creeks is subject to overflow, making rectamation by drainage and leveeing an important consideration. The large acreage of cut-over land, including uplands and river bottoms, is being rapidly brought into cuitivation. Corn, cotton, potatoes, susar cane and peanuts are the staple crops. Peaches, plums and figs are horticultural products of considerable importance.

In connection with diversified farming, live stock raising is an important feature. In this connection many fine dairy animals are ralsed.

Sandstone is found in considerable quantities. There are deposits of brick clay but the development of these deposits has been delayed.

Lands in this county are quoted at $\$ 5$ to $\$ 15$ per acre. A large acroage is available for new settlern.

## POTTERR COUNTIT.

Situated in the Panhandle; created in 1876 from Bexar County and organized in 1887; named for Robert Potter: area 874 square miles; population 12,424 in 1910 and 1,820 in 1900. Amarillo, the county seat and chief city, had a population of 9,957 in 1910 and 1,442 in 1900. Flelds, Simmons, Cliffside, Royal, Folsom, Pullman and St. Francis are other towns. It is served by the Chicago, Rock Island and Gulf, the Bouthern Kansas of Texas (Santa Fe), the Pecos and Northern Texas (Santa Fe), and the Fort Worth and Denver City Railroads.

About half of the surface is level and the remaining, breaks and valley lands of the Canadian River. Cottonwood is found alons the water courses It is drained by the Canadian River, which crosses the northwest quarter of the State, and by Rock, Amarillo, sieritta, De la Crux and Rio Pietrono Creeks, all dry durint most of the year. Underground water exists at depths of 25 to 300 feet. A small acreage is irrigated
from creeks. The rainfall averagen 22 inches per annum.

The solls vary from chocolate loam on uplands to soil and slit sand in the valleys. The live stoct industry of the Panhandle has centered around Amarillo for many years. In the days of the free range this city was the headquarters for ranchers within a radius of hundreds of miles. The free range gave away to the large pastures and today the large pastures are beieng cut up into farms. The live stock industry continues to take precedence over all others Stockmen have added to the impor. tance of the industry in this section by devoting attention to the improvement in the grade of their stock. With packing houses established at Amarilio, feeding of Live stock for market has become a new factor in the industry.

In the valleys of the county alfalfa is beieng successsfully produced. Upland farms are producing heary yields of wheat, Kaffir corn, mllo maize and broom corn. Interest is increasing rapidly in diversified farming. In the vicinity of Amarillo and other rallroad towns of the county the poultry industry is proving profitable. Poultry and poultry products are shipped in carload lots to various markets.

Among the resources of the county is found deposits of excellent brick and tile clay. This clay is used by plants in Amarillo. Amarillo is the metropolis of the Panhandle country. It is one of the progressive small cities of Texas It is important as a railroad center and as a distributing point for a large territory. The railroads centering in Amarillo employ a large force of men in their shops and yards. Many induatries are located here.

There is always sufficient land on the market to supply the demands of the increasing number of homeseekers coming to this section. Improved farm lands may be purchased at prices ranging from $\$ 17$ to $\$ 80$ per acre; unimproved lands from $\$ 12$ to $\$ 18$ per acre.

## PRESIDIO COUNTY.

Located in the big bend of the Rio Grande in West Southwest Texas; created in 1850 from Bexar County and organized in 1875: named for Presidio del Norte; area 2,652 square miles; population 5,218 in 1910 as against 8,678 in 1900. Marfa, the county seat and chief town, has a population estimated at 1,700. Eharter, Preaidio, Candelaria and Rindora are other towns. It is served by the Galveston, Harrisburg and San Antonio and the Kansas City, Mexico and Orient Rallreads.

The surface is mountainous in the west and southern parts; in the eastern and northern section there is considerable level area. Practically the entire county is destitue of running suriace water. A few small streams flow into the Rio Grande on the southern boundary, but are dry a portion of the year. The northern portion is devoted to stock raising, water being secured at an underground depth varying from 150 to 500 feet, and from water boles. But small attention is given to agricultural matters. There are a few farms along the Rio Grande which are cultivated by Mexicans. These farms are irrigated from small plants along the river. The rainfall approximates 15 inches per annum.

The raising of goats and sheep are profitable occupations and Marfa has become one of the leading wool and mohair markets of Texas. The cattle raising industry has always been important.

South of Marfa a dam has been constructed across Alamita Creek, which is a dry water course through a deep canyon. This dam will collect and hold flood water and it is estimated that 12,000 acres of exceedingly rich land will be placed under irrigation. Similar opportunities exist for irrigation in other sections, and with improved transportation facilities it is stated that a large acreage will be brought under cultivation within a few years. About 1,000 acres are now irrigated.

The soil is a rich volcanic origin, chocolate in color, and is very productive when given proper moisture. A few small tracts are irrigated in the vicinity of Marfa from wells, and apple growing is interesting a number of people. Small orchards have proven to be very productive of a superior quality of fruit.

In the mountains are found traces of very valuable metals and minerals. Copper and silver are said to exist in paying quantities. Traces of lead and gold are also found. One of the richest undeveloped resources is found in the great deposits of excellent marble. Limestone and granite also exist in abundance. There are many indications of oll.

## RAINS COUNTY.

Situated in Northeast Teras; created in 1870 from Hunt, Wood and Hopkins Counties and organized the same year; named for Emory Rains; area 252 square miles; population 6,787 in 1910 as against 6,127 in 1900. Emory, the county seat, is an unincorporated town. Point, Goff, Dunbar and Ginger are other towns. It is served by the Missouri, Kansas and Texas and the Texas Short Line Rallroads.

The surface is slightly rolling. It is well timbered, post oak, red oak and hickory being the principal varieties, which furnish raw material for many mills. It is drained by the Sabine River, which borders the south, and by Lake Fork, which traverses the northern part. There is an abundance of grood water at a depth of 30 feet. The average rainfall approximates 40 to 45 inches annually.

The solls vary from chocolate to black waxy in the western portion and a dark sandy in the eastern portion. Diversified farming, frult and truck growing are leading occupations, although the raising of live stock is an important industry. The poultry indusiry has also proven very profitable. Considerable attention is given to the production of honey. All staple crops, including Irish potatoes and peanuts, are produced in large acreage. Peaches, plums and berries are leading horticultural products. Tomatoes are also grown extensively.

There are valuable deposits of lignite and brick clay. Lignite is mined at Ginger.

Many farmers from other States have purchased acreage in Rains County within the past year and old scttlers are making many improvements about their places.

The average price of improved farm land is $\$ 25$ per acre and of unimproved land $\$ 12.50$ per acre.

## RANDALL COUNTYY.

Situated in the Panhandle; created in 1876 from Bexar County and organized in 1889; named for Gen Horace Randall; area 872 square miles; population 3,312 in 1910 and 963 in 1900. Canyon, the county seat and chief city, had a population of 1,400 in 1910 . It is served by the Pecos and Northern Texas Railroad (Santa Fe ).

Its surface is generally level, but broken, however, by two canyons. the Paloduro and the Tierra Blanco, through which run creeks of the same names. These creeks are the beginnings of the Red River. A small amount of cedar is found in these canyons, but not in sufficient quantity to be of commercial value. Unfailing sources of water exist at depths of 50,200 and 400 feet. The first stratum is not considered of good quality; the second stratum is a very good mineral water and the last stratum a very fine water, excellent for domestic as well as irrigation purposes. Some experiments in irrigation of small tracts from these wells have been successfully made and considerable interest is being manifested in irrigation matters as conducted from similar wells in counties in the Plaing country. The rainfall averages 23 inches per annum.

The soil is a dark chocolate
loam, easily cultivared and very productive when proper moisture is received. Under improved methods of soil preparation and intense cultivation large yields of Kaffir corn, milo maize, alfalfa, wheat, oats and barley are secured. Sugar beets have also been successfully grown. These beets by test have proved to be rich in sugar material. They also are most excellent as a stock feed. The fruit growing industry is not very prominent. but plums, grapes, cherries and apples have been produced in small orchards for many years.

Formerly the live stock industry took precedence over all others in this county. Many large ranches are still conducted, but homeseekers have placed a large acreage under cultivation. Diversified farming is becoming more general and Randall is taking its place in the list of agricultural counties in the State. The poultry industry is becoming a prominent factor as a revenue producer. There are many breeding pens and nearly every variety of chickens is represented.

Canyon is the site of the West Texas Normal; it is a State institution having for its purpose the training of teachers. It is just beginning its fourth year and has already taken high rank among the schools of its kind in Texas.
Improved farm lands are quoted at $\$ 25$ per acre; unimproved lands at $\$ 15$ to $\$ 20$ per acre.

## REAGAN COUNTY.

Located in West Southwest Texas; created in 1903 from Tom Green County and organized the same year; named for Judge John $H$. Reagan; area 1,190 square miles; population 392 in 1910. Stiles, an unincorporated town, is the county seat. It is served by the Kansas City, Mexico and Orient Rallroad.

The surface is generally level. Mesquite is the only timber. There are no living streams in the county, but a good supply of underground water is obtained at a depth of 100 to 350 feet. The rainfall is light, amounting to 10 to 14 inches per annum.
The soll varies from dack chocolate to black in the valleys and light chocolate to gray on the uplands. Live stock raising is the chief industry.
Improved farm lands are quoted at $\$ 10$ to $\$ 12$ per acre; unimproved lands from $\$ 5$ to $\$ 8$ per acre. A small amount of irrigation is practiced, the water being drawn from wells.

## REAL COUNTY.

Real County was created and organized in 1913 with the county seat at Leaky. It contains an area of 700.8 square miles, 471 of which was taken from Edwards County.
184.8 from Bandera and 45 from Kerr. General description and statistics will be covered in the stories of the counties from which it was formed. Conditions are practically the same.

## RED RIVER COUNTY.

Situated in Northeast Texas on the Red Piver; created in 1836 as an original county and organized the following year; named for the river which forms its northern boundary; area 1,061 square miles: population 28,564 in 1910 as against 29,893 in 1900. Clarksville, the county seat and chief city, had a population of 2,065 in 1910. Other important towns are Annona, Avery, Detroit, Woodland, Manchester, F'ulbright, Rugby, Bogata and Halesboro. It is served by the Texas and Pacific and the Paris and Mount Pleasant Railroads.

The surface is generally rolling. with about one-third prairie lands. Along the river bottoms there is a dense growth of oak and other hardwoods. At least one-fourth of the soil is black waxy. In the Red River bottoms a rich alluvial deposit of great depth is found. A small proportion of the prairie land soll is gray loam. It is drained by the Red River on the north and Sulphur River on the south, and numerous creeks traverse it. Artesian water exists at an average depth of 850 feet; surface water at a much shallower depth. The rainfall will average 45 to 50 inches per annum.

The agricultural interests are large and well developed. The county is noted for its long staple cotton and its magnificent yields of corn, hay and alfalfa. Other staple crops of North Texas yield abundantly. There are no large tracts of land for colonization, but there is an active movement in real estate and many of the larger farms are being cut into smaller tracts. A large number of Northern farmers have settled in the county and scientific methods of agriculture are becoming the rule.

The breeding of fine live stock is practiced by most farmers, a large number paying especial attention to the production of fine horses, mules and dairy cattle. Clarksville controls the trade of a large territory. While the county contains no paved highways, the split log drag has been very successfully operated with splendid results on many of the public roads.
Improved farm lands range in price from $\$ 40$ to $\$ 80$ per acre; unimproved lands from $\$ 10$ to $\$ 40$ per acre.

## REEVES COUNTY.

Situated in West Southwest Texas; created in 1883 from Pecos County and organized in 1884: named for George R. Reeves; area

2,610 square miles; population 4,392 in 1910 as against 1,847 in 1900. Pecos, the county seat, had a population of 1,856 in 1910 and 639 in 1900. Other important towns are Toyah, Balmorhea and Saragosa. It is served by the Texas and Pa cific, the Pecos River (Santa Fe) and Pecos Valley Southern Railroads.

It is generally level. There is no timber with the exception of a stunted growth of mesquite. It is drained by the Pecos River and Toyah Creek. Artesian water is reached at depths ranging from 200 to 600 feet, and an almost unlimited supply of underground water is found at depths of 50 to 200 feet. The rainfall averages 13 inches per annum and this section was formerly included in what was known as the Great American Desert.

The soils are classed as deep chocolate and sandy loam, much of it formed by the washings from the mountains. With the application of water it becomes very productive and during the last few years a large acreage has been placed under irrigation in the vicinity of the Pecos River, in the shallow water belt near Pecos City, the artesian belt near Toyah and at Balmorhea and Saragosa, at the foot of the Davis Mountains, where several large springs are located. In these sections alfalia is a profitable crop, but grains and forage crops, besides fruits and vegetables, are easily grown and are becoming more prominent each year. Approximately 20,000 acres were irrigated in 1913.
There are several large vineyards from which are secured luscious grapes of most varieties known in California. Grapes in this region ripen and are ready for the market several weeks before those in California, the nearest competitor, Apples, peaches, quinces, plums, apricots and berries are listed in the fruit crops and all are produced in quantities for shipment to outsjde markets. Melons, particularly cantaloupes. are a favorea crop, and, although late, command top prices because of their most excellent quality and flavor.

In sections not irrigated the live stock interests predominate. Wellbred stock is the rule. Only enough dairy animals are raised to supply the local demand for butter and milk.

At Toyah an oil field has been developed. Gold was discovered near Saragosa in 1913 and many are prospecting. Tie gold find is reported to be worth developing and a company is. at work sinking shafts.

I'rigated lands are variously quoted at $\$ 35$ to $\$ 150$ per acre. Other lands are valued at $\$ 15$ to
$\$ 50$, it depending upon the possibilities of irrigation by the development of individual plants.

## REFUGIO COUNTY.

Located in the West Gulf Coast country; an original county of Texas; organized in 1837; named for the mission (Our Lady of Refuge); area 802 square miles; population 2,814 in 1910 and 1,641 in 1900. Refugio, the county seat and chief city, is unincorporated, the population being estimated at 900. Other important towns are Woodsboro, Bayside and Tigoli. It is served by the St . Louis, Brownsville and Mexico Railroad.

The surface is rolling. It has an abundant supply of post oak, live oak and mesquite for fuel purposes. It is drained by the San Antonio, Aransas and Mission Rivers and the Blanco, Larco and Copano Creeks. Artesian water is reached at a depth of 1,000 feet; shallow well water at 40 to 100 feet. About 200 acres of land are irrigated by water from the rivers. The rainfall averages 26.92 inches per annum.

The soil in the northern part and on the uplands is black waxy and hogwallow: in the southern portion there is sandy loam. Live stock raising is the leading occupation. Diversified farming is practiced, with cotton as the money crop. Figs, grapes and pears are the leading horticultural products.

The bee and honey industry is growing in importance. There is a large acreage unoccupied by farmers. The live stock interests control large sections of land, but many ranches are being cut into farms and placed on the market.

Improved farm lands are quoted a.t $\$ 25$ to $\$ 50$ per acre; unimproved at $\$ 15$ to $\$ 25$ per acre.

## ROBERTS COUNTY.

Situated near the northeast corner of the Panhandle; created in 1876 from Bexar County and organized in 1889; named for John S. Roberts: area 860 square miles: population 950 in 1910 as compared with 650 in 1900 . Miami, the county seat, is an unincorporated town. The Southern Kansas Railway of Texas (Santa Fe) crosses the southeast corner.

The surface is about one-half rolling, one-fourth level plains and the remainder broken and hilly. A slight growth of hackberry, cottonwood and wild china is found along the streams. The South Canadian River crosses from west to east. Various tributaries of this river flowing from suath to north furnish excellent drainage. Water is found at a depth of 20 to 25 feet in the valleys and at about 300 feet on the plains. The supply is apparently inexhaustible, very soft and
excellent for domestic purposes. The tributaries of the Canadian River are fed by springs and there is an abundance of water for stock. The average rainfall approximates 22 to 24 inches. This is distributed largely through the summer months.

The soil of the plains is a black loam, very rich and productive; in the bottom lands is alluvial and sandy loam. The plains lands are particularly adapted to wheat and other grains; the bottom lands are productive of corn, cotton, vegetables and alfalfa. Live stock raising on ranches is the chief industry, but the agricultural interests are making rapid growth.
Improved lands are quoted at $\$ 15$ to $\$ 35$ per acre; unimproved lands at $\$ 10$ to $\$ 20$ per acre.

## ROBERTSON COUNTTY.

Situated in Central East Texas; created in 1837 from Milam County and organized in 1838; named for Sterling C. Robertson; area 913 square miles; population 27,454 in 1910. Frankin, the county seat, is unincorporated. Calvert, the chief ctty, had a population of 2,579 in 1910. Hearne and Bremond are other important towns. It is served by the International and Great Northern, Houston and Texas Central and the Hearne and Brazos Valley Rallroads.
The eastern half is rolling and the western half nearly level. It is well timbered with post oak, pin oak, blackjack and elm. The growth is in sufficient quantity to provide raw material for a flourishing hardwood industry. It is bounded on the west by the Brazos River and on the east by the Navasota River and traversed by the Little Brazos and numerous other streams, which provide waterways to carry off the flood waters and give a good natural drainage. Artesian water exists at a depth of about 600 feet. An abundant supply of water is gotten from shallow wells. The rainfall averages 34.9 inches per annum.

Levees have been constructed along the Brazos River for the protection of bottom lands from overflow, and a large acreage of extremely fertile soll has thus been reclaimed for agricultural purposes.

A large part of the soll is a soft sandy loam, easily cultivated and very productive. A deep alluvial soil is found in the river bottoms. A streak of red land passes through the county from east to west and is very fertile.
Diversified farming, supplemented by the breeding of live stock, is the chief industry. Cotton and corn are the leading crops. Sugar cane, sorghum and various forms of truck and other staple crops are grown extensively. Peaches,
pears, strawberries, plums, figs and melons are the leading iruits. The bee and honey industry is growing in size and importance, which is not only proving profitable for fruit growers, but is yielding a good income from the sale of honey. Chickens, turkeys and egga are shipped in large quantities to the markets. The poultry industry is thriving and a larger number of people are investing in it each year. Poultry raisers are doing away with mongrel stock and are breeding stock profitably, not only from a market standpoint, but for show purposes.

Valuable deposits of coal and lignite exiat and lignite is being mined about four miles west of Calvert.

A large number of now settlers are developing farms, while old settlers are making valuable improvements.

## ROCKWALL COUNTX.

Situated in North Texas; created in 1873 from Kaufman County and organized the same year; named for a prehistoric wall, traces of which still exist; area 171 square miles; population 8,072 in 1910 and 8,531 in 1900. Rockwall, the county seat and chief city, had a population of 1,136 in 1910. Royse Clty, Fate. Chisholm, Heath, McLendons and Munson are other important towns. It is served by the Missourl, Kansas and Texas Railroad and the East Texas Traction Company interurban.

Rockwall County is the smallest in area in the state. The surface is high rolling prairie and the soil is black waxy lime land, which yields excellent crops of cotton. corn, oats, wheat, forage crops and vegetables. Peaches, plums and grapes grow luxuriantly and are of excellent quality. The East Fork of the Trinity River runs the entire length of the west side. Along this stream are found ash, hackberry, bois d'arc, elm, burr oak and cedar. Artesian water exists at a depth of 1,850 feet; good well water is found at much shallower depths. The rainfall approximates 35 to 38 inches per annum.

Cotton, corn and wheat are the chief field crops. Live stock raising is conducted in connection with farming, a great deal of attention being given to the raising of fine stock and dairy animals. The bee and honey industry and the poultry business have developed to large proportions. Truck growing is very profitable, due to the nearness and convenience of the city of Dallas.

An excellent brick clay is found and is manufactured at Rockwall.

Lands are enhanced in value because of the nearness to Dallas markets. Improved farm lands are
quoted at $\$ 80$ to $\$ 100$ per acre; unimproved lands at $\$ 40$ to $\$ 60$ per acre. Homeseckers can find many opportunities in Rockwall County.

## RUNNELS COUNTY.

Located in Central West Texas created in 1858 from Bexar and Travis Counties and organized in 1880; named for Gov. Hardin B. Runnels; area 1,073 square miles; population 20,853 in 1910 and 5,379 in 1900. Ballinger, the county seat and chief city, had a population of 3,536 in 1910 and 1,128 in 1900. Winter, Miles and Rowens are among the other towns. It is served by the Gulf, Colorado and Santa Fe, Abilene and Southern and the San Saba and Llano Valley Rallroads.

The surface is generally level. rolling in portions, with broken places along the creeks and rivers. The county is fairly well supplied with timber, mesquite, hackberry, elm and pecan being the principal varieties. It is well drained by the Colorado River, Elm, Valley, Coyote and Mustang Creeks and a number of sinaller streams. A good supply of underground water for stock and domestic uses is found at a depth of 40 to 100 feet. About 2.500 acres are under irrigation, the water being obtained from the Colorado River. The average rainfall is 25 inches per annum.

The solls vary from hogwallow in the uplands to a sandy loam in the valley and bottom lands, with a very little black waxy. The live stock interests predominate, though farming is becoming more prominent. All Central West Texas staple crops are produced, together with various forage crops, peanuts, broom corn and melons.

It is estimated that 75 per cent of the tillable land is available for new settlers. Besides general farm crops, lands and climate are adapted to the growth of peaches, plums, grapes and apricots. Considerable interest is manifested in the pecan industry, there being approximately 2,000 fine grafted pecans planted the last few years. Others are contemplating taking an interest in this industry. A marked interest is manifested in the poultry industry. Fine chickens and being raised for the market and eggs and fowls are shipped out in car load lots.

Valuable deposits of limestone are found and quarried for building purposes. Ballinger, the county seat, has a number of industries that are prospering. The county is rapidly settling and its many natural resources are belng developed. Among the plans for future development is one which calls for the damming of the Colorado River, providing water storage for the irrigation of a large tract of land.

Improved farm lands ranse in price from $\$ 25$ to $\$ 40$ per acre; unimproved lands from $\$ 10$ to $\$ 20$ per acre.

## RUSK COUNTX.

Bituated in East Texas; created in 1843 from Nacogdoches County and organized the same year; named for Gen. Thomas J. Fusk: area 915 square miles; population 29,946 in 1910 and 26,099 in 1900. Henderson, the county seat, is an unincorporated town. Overton, Tatum, Mount Enterprise, Glenfawn, Minden and Laneville are other towns. It is served by the International and Great Northern, the Gulf, Colorado and Eanta Fe and the Cairo and Northern Rellroads.

The county is on the divide between the Sabine and Angelina Rivers. Land that has not been put into farms is covered with dense growths of pine, various kinds of oak, gum, elm and birch. Most of the timber is available for manufacturing purposes In the valleys the soll is generally mellow alluvial, very rich and productive. The uplands are divided between the gray, the red and the chocolate sandy loam, the gray predominating. The rainfall will approximate 40 inches per annum. Good well water is obtained at an average depth of 80 feet. There are numerous eprings and creeks furnishing excellent drainage. Many of the springs are mineral, said to possess medicinal virtues.

It is one of the important truck and fruit growing sections of Texas, although the usual field crops are grown. The acreage given over to Irish and sweet potatoes, cabbage, tomatoes and various other forms of truck is increasing annually. A large acreage is devoted to peanuts, peas and other crops of like nature. Fruit farming is one of the leading industries. Large shipments of peaches, apples and plums are annually made.

Among the various natural resources are found large and valuable deposits of clay, iron ore, 1 kg nite and marble. It is believed that the iron ore deposits will be developed in the near future. Traces of oll and gas have been found and considerable prospecting done looking toward are discovery of fields.

One of the chief industries is lumbering. It is estimated that there are $500,000,000$ feet of standing timber and at the present time about fifteen sawmills, employing many men, are in operation.

There are many advantages aIong agricultural lines and many opportunities exist for homeseekers. Lands are available at moderate prices.

## texas counties.

SABINE COUNTY.
in East Texas, bordering ies in East Texas, bordering
uisiana; one of the orlginal
one uislana; one of named for the
inties of Texas;
nicipality of Sabine; organized nicipality of Sabine; organized ion 8.582 in unincorporated town the county seat; Bronson, also incorporated, is the chief town.
ookland and Pineland are other portant towns. It is served by railroad, the Gulf, Colorado d Santa Fe . Sabine County lies in the rain
d timber belt of the State. The d timber belt of the State. The annum. The northern portion hilly, rough and broken; the el. It is well drained and suped with many living streams. t. The chief borders industry is lumt. The chief industry is lum-
ring, there being several large Nmills cutting yellow plne and ing cultivated and good yields of ld crops,
dere are valuable deposits of Several deposits of vatuable ys have also been located. One mphill. There are fine indicans of oil at different portions ne.
Sabine County has a large acre cm lands are quoted at $\$ 6$ to $\$ 15$ acre; unimproved lands at $\$ 15$ 2.50 per acre.

## SAN AUGUSTINE COUNTY

 Situated in East Texas in the unties of the State; named for municipality; area 570 square les; population 11,264 in 1910, asainst 8,434 in 1900 . San Auguse, the county seat and chief Y, had a population of 1,204 in the Gulf. Colorado and Santa ilroads.
he southern portion is practily level; the northern part is
ly and rolling. It is heavily tim-
red with pine and hardwood red with pine and hardwood ployment to many men. The
gelina and Attoyac Rivers, both gelina and Attoyac Rivers, both
ge streams, form the southern de western boundary lines. water supply being abundant all purposes. The rainfall apoximates 48 inches per annum. river bottoms. The uplands formed of a chocolate loam angeburg soil in small and large eas is found; this is particularly
adapted to the growth of fine clgar
It is estimated that there are be-
tween $600,000,000$ and 800,000 , tween $600,000,000$ and $800,000,000$ feet of standing, mich is long leaf pine. Thirty sawmills are oper ated, having a combined dally calands are being rapidiy occupied by farmers, fruit and truck growers, and all staple crops are sue cessfully grown
Valuable and extensive deposits of iron ore exist. Oil has been dis-
covered in small quantities and gas makes its appearance in many places.
sources. It is one ich in natural re sources. It is one of the oldest setAugustine holding even honors with Nacogdoches in being one o west. During its early existence transportation facilities wer crude, but with the coming o zens was given to the lumbering industry. Such is the case in a large measure today and the rich mineral wealth remains undevel land remains unoccupied.
Improved farm lands are quoted at $\$ 10$ to $\$ 40$ per acre; other lands years new settlers have arrived in large numbers and are assisting in the development of the county's

## SAN JACINTO COUNTY.

Situated in Southeast Texas created in 1870 from Polk, Liberty Walker and Montgomery Counnamed for the battle of San Ja cinto; area 636 square miles; popu lation 9,542 in 1910 . Cold Spring,
the county seat and chief city, is the county seat and chief city, is
unincorporated. Shepherd, Oakhurst, Evergreen, Point Blank and Camilla are other towns. It is served by the Houston East and
West Texas and the Trinity Valley Southern Railroads.
The surface is mostly level, the lands being rolling and hilly near rivers and creeks. pine, oak, ash wood are in abundance, making the lumberindustry one of the important factors in the industria Jacinto and Trinity Rivers and various ereeks. There is an abundance of water for all purposes Artesian water exists at depths
ranging from 300 to 800 feet; shal low wells vary in depth from 30 to 100 feet. The rainfall approximates 40 to 45 inches per annum. The soils of the county vary; the the uplands mostly sandy loam,
with some black waxy. Live stock raising is an important in-
dustry on the farms. Cotton, corn, cane, potatoes and truck are the leading crops. A large numg genfarmers lines by caring for a number of swarms of bees, it being estimated that there are 1,500 swarns in the county. favor ameng many. Iron, silver, sulphur and mica have been discovered, but the deped. posits have not been deposits of There, sandstone and brick clay. Lumbering continues to be the chief manufacturing improved farm lands quoted at $\$ 20$ to $\$ 40$ per acre; unimproved as high as $\$ 20$ per acre.

## SAN PATRICLO COUNTY

Situated in the West Coast country; one of the original counties, organizeaint of Ireland; area the patron saint of population was ${ }_{7,307}$ in 1910 and 2,372 in 1900. Sinton, the county seat and chie city, is unincorporated, 1,000 . Other important towns are Aransas Pass, Gregory, Mathis, Patricio, Taft, Portland, Ingleside, St. Paul and Angelita. The county is served and Mexico and the San Antonio and Aransas Pass Railroads.
The surface is generally level. The chief timber is mesquite, with The drainage is carried off by the Nueces and Aransas Rivers. An abundant supply of of 50 feet. The at an averageraging 30 inches per annum, is sufficient for the growing of all staple crops. The solls are mostly dark sand and alluvial in river bottoms.
Live stock raising and diversified farming are chief industries, although increasing the growing of fruits, which consist of grapes, figs and various berries. A large acreage of melons merket. Truck year for in an industry attaining a greater importance from year to
year. Cotton is the leading field year. Cotton is the leading field found, but there are many undeveloped beds of brick clay and deposits of lime and sandstone. Aransas Pass is now one of the deep
water harbors of the Texas Gulf
Coast. Improved farm lands are variously quoted at $\$ 60$ to $\$ 150$ per proved lands are quoted at $\$ 25$ to $\$ 50$ per acre. A large act

SAN SABA COUNTY,
Located in West Central Texas; created in 1856 from sexar county and organized the same River; area 1,150 square miles; population 11,245 in 1910, as compared
with 7,569 in 1900 . San Saba, the with 7,569 in 1900 . San saba, the
county seat and chief city, was unincorporated at the time of taking the thirteenth Springs and Cherokee are land Springs and is served by the other towns. It is served by the
Gulf, Colorado and Santa Fe Railroad.

The surface is broken and characterized by high hills and broad, rich valleys. toll adapted to live stock raising. well adapted to a agriculture. The and the valleys is supplied with timber, post oak, mesquite, pecan and cepost oak, mesquite, peading varleties. The hardwood lumber industry is important. The San Saba River passes through Colorado River forms its eastthe Colordary. Springs and creeks are numerous. The underground supply of water is reached at an 4,000 acres of land are irrigated by 4,000 acres springs and from the Wan Saba and Colorado Rivers. The average rainfall is 25 inche per annum. The from red and gray to black sandy loam. Some black waxy land is found on the ridges
The live stock interests on ranches and on farms are large where irrigation is practiced the wroduction of cetton, alfalfa, corn, fruits and vegetabes in San Saba lead. Irrigation plants in san alued County are apotton and corn are the leading staple crops; onions, potatoes and otio quantities. The gathering of pecans, native growth, gathering of pecans, natin industry in fall of the year. Over $\$ 200,000$ worth of pecans are marke Pears, peaches, plums and grapes are produced in small quantities. There are 3,000 swarms of bees, producing in ordinary years 30,000 pounds increasng . The poultry industry is also taking a prominent place among other farm are valuable coal, iron and marble deposits. Coal is found in the central part, iron in the western part and marble in the central part. There are also valuable deposits of sandstone fire clay. Thus far these deposits remain undeveloped With the exception of quarrying lime and sandstone. organized to develop marble quarrying.

With the coming of the rallroad interest in the natural resources is increasing and the progrt is satisfactory. Improved farm lands are quoted at $\$ 25$ to $\$ 75$ per acre unimproved lands at $\$ 15$ to $\$ 25$ pe acre. A large a

SCHLEICHER COUNTY. Situated in Southwest Texas; created in 1887 from in 1901 ; named for Gustav Schleicher; area ,355 square miles; population 1,890 the county seat, is unincorporated The Kansas City, Mexico and Orient Railroad has been surveyed ty to Del Rio. The surface is rolling, with much
level land. It is well timbered with live oak and mesquite. It is drained by the Concho, San Saba and Dev-
il's Rivers. The waters from the il's Rivers. The waters Saba and Concho Rivers are used for irrigation purposes, there being approximately 500 acres under ditch. The average rainfall is
16 inches. The average depth of 16 inches. The average depth of
the wells is about 200 feet. The principal soil is black loam. Live stock raising is the leading industry. Farming is practiced on
a small scale only. The soil of a sme than one-third of the county is very rich and responds readily
to dry farming methods. Developto dry farming methods. rigation are among the plans of the eitizens. There are valuable deposits of limestone, also white brick clay;
both are undeveloped. The altitude of a large part of the county approximates 2,500 feet. Eldorado, the county seat, is becoming noted altitude
nights.
mproved lands are quoted at \$5 to $\$ 8$ per acre.

## SCURRY COUNTY.

A West Texas county, created in 1876 from Bexar County and organized in 1884; named for William population 10,924 in 1910, as compared with 4,158 in 1900. Snyder, the county seat and chief city, had a population of vanna, Hermleigh, Ira and Dunn are other towns. It is served by two railroads-the Roscoe, Snyder and Pacific and the Pecos and
Northern Texas (Santa Fe system). Northern surface is mostly level prairie, with breaks and hills in the northern part. The timber consists of mesquite, which is suffadent River fuerders the west side. Deep Creek,

Funis Creek, Lone Wolf and Cotdrainaze system. There is an abundance of good water for all is reached at depths varying from is reached at depths varying from
80 to 120 feet. The average rainfall for a period of ten years is
21.01 inches per annum 21.01 inches per annum.

The soil in the south and west parts is loose sandy, with occasional ridges of gravel; the re-
mainder is red and black sandy loam. Live stock is a very 1 mportant industry. Cattle are well
bred and considerable attention is being given to hogs, which appear to be immune from disease in this section. Diversified farming is claiming an increasing interest. crops are usually successful, Peaches, apricots, plums and small
fruits are produced in small quan-
tities
tities. Improved farm lands are quoted at $\$ 20$ to $\$ 30$ per acre; unimproved lands at $\$ 12$ to $\$ 15$ per acre. The county is rapidly settling with an there remains a large acreage available for newcomers.

SHACKELFORD COUNTY.
Situated northwest of Central Texas; created in 1858 from Bosque County and organized in 1874; 926 square miles; population 4,201 Albany, the county seat, is an unincorporated town. Moran is another town in the county. It is road.
The western portion is hilly and mountainous. A few low ranges of hills cross the eastern portion, but there is much level land. Mesquite scarce. The Clear Fork of the Brazos River, Battle Creek, Hubbard Creek and Deep Creek provide gooc water. The rainfall averages 25 inches per annum.
The soils in the bottoms of the Brazos River are mostly rich red chocolate loam. Some sandy land is found on the uplands. Stock raising is the chief industry, spe-
cial attention being given to the cial attention being of high-grade beef cattle breeding of high-grade beef cattle,
sheep and hogs. Farming is practiced in a limited way only, but the number or
increased yearly.
There is an unlimited supply of good quality limestone, but the de posits have wells near Moran sup ply that town with fuel and light. The field has never been fully deered in paying quantity

Lands are quoted at $\$ 15$ to $\$ 30$
Lacre. About one-half of the per acre. About one-hallable for agricultural
land availa purposes is unsety the impulse of the westward movement rapld deseekers, and is in line for few years. velopment in the resources provide abundant opportunities forments.

SHELBY COUNTY. Situated in East Texas, bordering the Sabine River; one State, organized in 1837; originaliy named for the municipality of in honor of changed and named 814 square miles; Gen. Shation 26,423 in 1910, as compared with 20,452 in 1900 city, had the county seat and in 1910 . Timpa pop, Tenaha, Joaquin, Shelbyville Waterman, Patroon and New It is are other important townado and served by the Guouston East and West Texas, the Texas Northwestern an
The surface is rolling and partly hilly, with much level land. it is bountifully supplied which keeps a number of sawmills in The Sabine throughout the year. eral creeks rise in the western portion and empty into an abundant River, furnishing an good drainsupply of water water is found at a age. Aepth of 800 feet. Wells averages 25 feet. The rannum.
45 inches per annum. The western and southern pord
tions are marked by high sand tions and deep valleys. The solls are particularly adapted lo whering and vegetables. industry, a large is the leading cultivation. Cotton acreage of the leading crops. Sugar is one for syrup, Trish and sweet potatoes, peanuts and various olums,
staples produce bountifully. Plums staples produce bountifull. Peaches figs and grown and shipped in large quantities to market. A farmacreage is devoted toads are shipped ing, and many carket. The poultry industry is prominent, but is conducted chiefly farms.
There are deposits of iron ore, coal and limestone, but these deposits remain undevelopd gas, and are also traces of onderable prospecting has been done.

Thiso trable prospecting has been
The surface presents a succession
The
special tax, which will net the of hills of gentle declivities slop-
ing into valleys, generally narrow,
A special tax, which will net the
sum of $\$ 40,000$, has been carried,
end this money will be devoted
the construction of good roads. the construction of good roads. dly occupled by farmers who are developing the agricultural resources of the county. There of desirremains a large acreage settlers able land open to new srom $\$ 5$ to $\$ 50$ per acre.

SHERMAN COUNTY. Situated in the northern portion of the Panhandle; created in in 1889; named for Gen. Sidney Sherman; area 900 square minst population 1,376 in 1900 . Stratford, the county seat, had a population of 520 in seat, had a pexho is another important town. It is served by Gulf Railroad.
The surface is generally level, The surface is generally level, cut by sevelake basins. Timber is scarce. Tt is drained by Deaver, Frisco, Coldwater and supply of water is found at a depth of 22 to feet. The rainfalum.

Thehes soils are a dark loam, The upland soils are a dark land, a very rich dark loam. The live stock industry leads; diversifimfarming is becoming of with wheat a poading crop. All other crop grown in the Panhandle duit grow this section. Although fruit grence, ing has not obtained promin pears do well. Improved farm lands are quoted at $\$ 10$ to $\$ 20$ per acre; unimproved lands at $\$ 5$ to $\$ 10$ per acre. section of Texas for fruit growing and general farming. Primarily a cattle country, new settiers acreage in difficulty in amoun't desired.

## SMITH COUNTY.

Situated in East Texas, north of center; created ind organized the County in 1846 and forganized James Same year; narea 984 square miles; pop-
Smith; ar ulation 41,746 in 1910 and 37,370 and 1900 . Tyler, the county seat an of 10 , chief city, had a pob9 in 1900 . Art, Troup, Bullard, Lindale, Winona, Mount Sylvan, Swan, Omen, imporand Whitehouse are other the St. tant towns. It is tional and Great Northern and the Texas and Pacific Railroads.

TEXAS COUNTIES.
often extended and undulating
watered by numerous streams, watered by numerous streams. ses; the alluvials of the botis, gray sandy and red lands. bottom lands are well adapted corn, sugar cane and other sta-
crops. Considerable cotton is crops. the gray land and it is o considered especially fine for
ches, strawberries, sweet potaches, strawberries, sweet pota-
s and garden truck. The red
ghe s and garden truck. suited to growth of staple crops and
its. The iron in the red soil
sed kes it peculiarly adapted to the dother fruits. The rainfall apximates 45 to 48 inches per an-
$m$. Numerous streams and wells m. Numerous streams arnish an undance of pure water. The tural drainage is excellent. ere is an abundance of various
rdwoods and considerable pine. Diversified farming and fruit Diversified farming ond frum owing are of late years inter$t$ in the production of well bred e stock, including swine Among the natural resources are und large and valuable deposits or ore. There are also large posits of c
sits of salt.
Tyler is a commercial center of nportance. The city has made pid growth and has all modern
cilities and conveniences. There cilmany industries, employing a rge number of men, while many the merchants have expanded ong wholesale imes and ant distribting point for various kinds of erchandise. Smith County offers many oportunities to fome or new settlers. The movement of eal estate is active and prices of

## SOMERVELL COUNTY.

 Located in Central Texas; creted in 1875 from Hood County and rganized the same year; named 00 square miles; population 3,931 n 1910, as against 3,498 in 1900 . flenrose, the county seat, is an unneorporats. There are no railoads. A motor highway is now inder construction from Glen Rose o Dallas. An electric filas has also ourne to Glen Rose The surface is broken by rocky tills of moderate elevation. BeWeen the ranges are occupied by tarms, on which are produced cotton, corn, grains and forage cropsberries are produced in small quanities and vegetables are grown for portation, however, has thus far made it impossible to grow a large acreage of fruits and vegetables, so excellently adapted, farmers so excellently adapted, farmers
being confined to such crops as being confined to such crops as railroad towns. The live stock interests are be-
coming more important as farmers
mealize the advantage of growing realize the advantage of growing feedstuffs for winter consty results are beeing obtained $b$ y live stock farmers who recognize the value of pure breeds.
to supplying the home demand for butter and milk.
This section enjoys the distinetion of being underlaid with a Weologists pronounce it the best watered county in Texas. In the valleys every well flows. It is im-
possible to secure a well that does possible to secure a well that does not. are over 300 artesian wells, varying in depth from 30 to 330
feet. Shallow artesian wells flow feet. Shallow artesian wells fiow
mineral waters of various kinds, mineral waters of various kinds,
pronounced in the United States geological report as equal to Carlsbad and other famous European Waters in their medicinal give forth a pure, soft water, excellent for irrigation and cther purposes. This same report states that there are
about 30,000 acres of valley lands about 30,000 acres of valley lands
in the artesian belt which could be in the artesian irrigated. For this economically for the reason that this section lies within 75 miles of
Fort Worth and Dallas, the develFort Wort this great resource will, in the future, make Somerveli County more prominent as a pro-
ducer of all staple crops, fruits and ducer of ables. cedar, while in the valleys is found a good growth of hardwoods. All valleys are traversed but important as drainage channels. The Paluxy Creek is an important stream. The Brazos River crosses the eastern
portion. The rainfall averages 30 portion. per annum,
There are abundant deposits of brick clay, limestone, natural ceTraces of oil and gas exist, but no effort to develop a field has been made. Lands vary in price from a few dollars to $\$ 75$ per
favorably located.

STARR COUNTY.
Situated in south Texas on removed from the Gulf of Mexico:
created in 1848 from Nueces Councreated organized the same year, named miles; a portion of area square County was, however, Stanty in the formation of Brooks an a law in hich was created under Legispassed population 13,151 in 19 Rrande lature, 11,469 in 1900 . Rio Grande
and , is an uninCity, the county seat, There are no corpoads.
A low of hills traverses
rain of harallel to the

The soil in the valleys Upland soil black and gray and red sandy loam. Nearly the entire surface of covered with a thick grown exmesquite grass, for cattle. This cellent grazing fore county prominent in the live stock are pradLarge ranches, however, are Invaually giving warmers. Cotton and grain are leading crops, but all West Texas the county nearly parallel to the ancient course of the Rio Grande. From the line of Zapata are very down to Roma they are Roma close to the rills recede, leaving a wide valley, until Rio Grande City is valley, unthere they again touch reache, the river. Just below Rio Grande City they recede again, that reaches still broader of the county. to the ed that these valleys cond, estim 30,000 acres of irrigable cultivaabout 500 of which about 15 miles
tion. The hills are abcent for tion. The hillittle value except for grazing purposes. Nable land, covhills is the mesa or table quite tim-
ered with scattered mesquite Above ber and excelent plain, also good grazing land. 25 inches per annum. approximate 25 industries, outside Cattle raising district, take preceof the irver all others. Truck and fruit growing in irrigated revenue are becoming large acreage is producers. for new settlers. $\$ 50$ to gated lands are quoted at at $\$ 5$ to $\$ 80$ per acre,
$\$ 10$ per acre.

STEPHENS COUNTY Situated in North Central Texas; Situated 1858 from Bosque County and organized in Alephens; area or Alexanderies; population 7,980 926 square 6,466 in 1900 . Brecken-
in 1910 and in 1910 , the county seat, is important corporated town. Other impor and towns are Cadion it served by
as and Pacific Railroad, with a few
as and surface is rolling, with a few small hills. The pristoak and mesof timber are poined by Clear Fork quite. Brazos, Hubbard, Gonzare and Caddo Creeks. Good from 40 secured at depths rainfall, which to 110 feet. The is sufficlent in averages years for the production ordinary staple crops. About from wells, acres are irrigated creeks The valstorage tanks one-half to one mile wide and are exceedingly fertile.
fully grown. V aluable deposits of coal are Valuable deposits or
found in the northern part, but are found in the except for local useIt is estimated that the coad the posit is veral to the best in Texas. Gas has been discovered is being Breckenrid
developed.
developed. farm lands are quoted
Improved at $\$ 10$ to $\$ 25$ per acre; acre.

## land at $\$ 10$ to $\$ 15$ per acre.

STEERLING COUNTY.
Tocated in West Texas; created in 1891 from Tom Green County in 1891 from organized the same year; named for Capt. Sterling; 1,493 in square miles, 1910 as against 1,127 in 1900 . Ster1910, as against 1, chty seat and chief ling city, is unincorporated, the esti mated population being se concho county is served by the Concho, Llano
road. low range of hills lie on either Alde of the North Concho River; the valleys are one-harge bodies miles wide. Cedar, mesquite and of table in sufficient quantities for fuel can be obtained. It is drained by the North Goncho Lacy and Willow berry, Sterkiddle Concho River has its source in the sou be obtained part. Good water from 20 to 150 at depths vall truck patches amountfeet. to nearly 250 acres are irrom gated with water River and from the North Concho rail averages apwells. The rainfaches per annum. The soil in the bottom lands is dark chocolate waxy and some red lands black waxy ack industry is sandy. The cattle taking the lead and sheep ranking sech hogs are fine horses, mules and small acreraised. Thus cultivation, but where age is in chods are employed good right
yields o
secured.
secured.
There are deposits of iron, gypThere are limestone of some magnitude. There oil and gas.

The development of the underground flow of water is progressing. It is belleved that a large acreage will soon be placed under irrigation.

## STONEWALL COUNTY.

A Northwest Texas County; created in 1876 from Fannin County and organized in 1888; named for Gen. T. J. (Stonewall) Jackson; area 777 square miles; population 5,320 in 1910 , as against 2,183 in 1900. Aspermont, the county seat and chief city, is unincorporated; population estimated at 1,000 . Peacock is another important town. It is served b y the Wichita Valley Railroad.

The surface is rough, broken and rolling, with hills and canyons. There are also wide stretches of level land. The soil varies from a sandy loam to a black waxy. It has an average rainfall approximating 24 inches per annum. The drainage is good, the Sait Fork of the Brazos River and tributaries passing through the northern portion. The Double Mountain Fork takes a course through the southern part. Along these streams there is a slight growth of various hardwoods. Mesquite is found on the uplands.

The live stock industry occupies the attention of many of the citizens. Farming is practiced in a small way, the majority of farmers devoting attention to the raising cf cattle and hogs. Besides staple crops, large quantities of watermelons, cantaloupes and potatoes are grown. Peaches, plums, apricots, apples, grapes and berries are grown for home use. These fruits have been produced in small orchards for a great many years. With improved transportation facilities a greater interest is manifested in horticultural matters.

A splendid supply of water is found at depths varying from 25 to 200 feet, but thus far little attention has been given to irrigation matters. Homeseekers find a large acreage in various size tracts at their disposal. Improved farm lands are quoted at $\$ 20$ to $\$ 25$ per acre; unimproved lands at $\$ 10$ to $\$ 12$ per acre.

## SUTTPON COUNTY.

Situated in Southwest Texas, one county removed from the Rio Grande; created in 1887 from Crockett County and organized in 1890; named for Lieut. Col. Sutton; area 1,517 square miles; population 1,569 in 1910 . Sonora, the county seat, is an unincorporated town. There are no railroads, but a line from San Angelo to Del Rio has been surveyed through the county.

The surface is generally broken there being a succession of hill and valleys, the hills averaging a height of 150 feet and the valleys a width varying from 400 to 4,000 feet. Black loam and a reddish soil, both productive, predominate, and with an average of 18 to 24 Inches of rain, crop yields are good When given proper attention.

The live stock industry, how. ever, claims the attention of most of the population. Conditions are exceptionally favorable for the raising and feeding of sheep and goats, and many thousands graze on the hills and in the valleys. There are also many well bred cattle, this branch of the industry thriving in all sections.

From an agricultural standpoint this county has made but little progress. The population is siurse, running but a little more than one person per square mile, and without railroads and convenient markets for soil products, there has been but small encouragement to till the soll. Stockmen are beginning to practice farming to the extent of growing feedstuffs. and a small acreage is irrigated on which vegetables and fruits are grown for home consumption. From the success attained, there is reason to believe that many fruits and staple field crops would prosper if attention was given them.

Lands vary in price according to the demand and location. Some are quoted as low as $\$ 5$ per acre and others as high as $\$ 8$ and $\$ 10$ per acre.

SWISHER COUNTY.
Situated in the lower tier of Panhandle counties; created in 1876 from Bexar County and organl\%ed in 1890; named for James G. Swisher; area 850 square miles; ponulation 4,012 in 1910, against $1,2 \pm 7$ in 1900. Tulia, the county seat and chief city, had a population of 1,216 in 1910 . Kress and Happy are other important towns. It is served by the Pecos and Northern Texas Rallway (Santa Fe).

The surface is level, about : per cent being broken. It is entirelv without timber. It is drained by the North, Middle and South Tule Creeks. The depth of wells varies from 65 to 150 feet. A small acreage is under irrigation, water being drawn from wells. The average rainfall approximates 24 inches annually.

The soils vary from black and red to gray sandy loam. These soils absorb and retain moisture, and under conservation methods are proving very productive of wheat, oats, Kaffir corn, maize, sorghum, vegetables and fruits. In the valley of Tulia Creek, where there is subirrigated land, a large
acreage of alfalfa is grown. Along the railroad and within convenient distance of railroad towns there is a rapid increase in the amount of land cultivated, but in other sections the grazing of cattle is the chief occupation.

In some sections shallow water is obtained, and although interest in irrigation from individual plants is not widespread, its growth in counities to the south will later undoubtedly attract attention to the opportunities existing.

Apples, peaches, plums and grapes, when properly started and cared for, all thrive, and the fruit growing industry should become more important.
Many new settlers are constantly arriving and the agricultural interests are growing. Good lands can be obtained at prices ranging from $\$ 15$ to $\$ 35$ per acre.

## TARRANT COUNTYY.

Located in North Texas; created in 1849 from Navarro County and organized in 1850; named for Gen. E. H. Tarrant; area 900 square miles; population 108,572 in 1910, as against 52,376 in 1900. Fort Worth, the county seat and chief city, had a population of 73,312 in 1910 and 26,688 in 1900. Other important towns are Arlington, Grapevine, Mansfield and Polytechnic. It is served by twelve railroad systems, the Gulf, Colorado and Santa we, the Fort Worth and Denver City, the Trinity and Brazos Valley, the Texas and Pacific, the Houston and Texas Central, the Missouri, Kansas and Texas, the Chicago, Rock Island and Guif, the International and Great Northern, the St. Louis Southwestern, the Fort Worth and Rio Grande (Frisco), the Fort Worth Belt, the Northern Texas Traction Company and the Southern Traction Company of Fort Worth.

The surface is level in some sections, but largely rolling prairie; a smail portion is hilly. It is well timbered with oak, cottonwood and pecan, but not sufficient for industrial purposes. It is drained by Clear Fork and West Fork of the Trinity River, Sycamore, Village Creek, Big and Little Fossil Creeks. Artesian water exists at depths of 400 to 2.500 feet; an abundant supply of water is found at a depth of 50 feet. Drainage in a large portion of the county is good. One drainage district covering 3,000 acres has been established and land reclaimed at a cost of $\$ 250,000$. The overage rainfall is 28 to 30 inches per annum.

The soils vary in kind; the river bottoms are sandy loam; much black soil is found on the prairies. Live stook raising, breeding of fine
dairy and beef cattle, hogs, horses and mules are leading innes. Creameries are located at Alta Vista and at Fort Worth. The poultry industry is prominent near Fort Worth. Diversified farming is the chief occupation in the rural communities. Berries, peaches and plums are the leading horticultural products. Improved farm lands sell at $\$ 40$ to $\$ 100$ per acre; unimproved lands at $\$ 15$ to $\$ 25$ per acre.

Tarrant is cne of the leading counties of the State in the construction of good roads, 500 miles of surfaced highways, costing $\$ 1,000$ per mile, having been constructed. There are 450 miles of well-graded roads.

Fort Worth is the fourth city in size in the State of Texas and made the remarkable record of 170.9 per cent in growth in a period of ten years. It is one of the leading packing house centers and live stock markets in the Southwest; also a railroad center of importance. The wholesale and jobbing interests are important factors in the city's progress. The city ranks high as a distributing point for merchandise and is in active competition with other large cities in Texas in a large territory. As an industrial center it ranks fourth among the cities of the State. It is also prominent because of its educational institutions.

## TAYLOR COUNTY.

Situated in Central West Texas: created in 1858 from Bexar and Travis Counties and organized in 1878; named for a family of pioneers; area 900 square miles; popu_ lation 26.293 in 1910, as compared with 10,499 in 1900. Abllene, the county seat and chief city, bad a population of 9,204 in 1910 and-3,411 in 1900. Other important towns are Merkle, Ovalo and Buffalo Gap. The county is served by the Wichita Valley, the Abilene and Southern, the Texas and Pacific and the Pecos and North Texas (Santa Fe system) Railroads.

The surface is generally level, with a small range of mountains extending through it from the southeast to the northwest, forming a divide between the Colorado and Brazos Rivers. The general altitude is 1,800 feet above the sea level. Elm Fork, Cedar, Rainey and Willow Creeks are tributaries to the Brazos River, and Jim Ned, Valley Springs and Bluff Creeks are tributaries to the Colorado River. These streams furnish an abundance of water at all seasons of the year, with the exception of times of extreme drouth. W ell water is found at depths averaging 40 feet. The rainfall is 24.49 inches per annum.

The soil is of several varieties, varying from a black hog wallow to dark and red loam. It is fairly well timbered with mesquite, some oak, elm, pecan, cedar and nackberry along the streams. It has been noted for many years for its live stock industry. Of late years there has been a general movement toward the improvement of stock and the Breeding of dairy cattle. A creamery is operated at Abllene. Many farmers are engaged in poultry raising. Diversified farming has been practiced for a number of years, cotton being the chier crop. Grains, milo maize, Kaffir corn and various forage crops are successfully produced. The soll and climate are also adapted to the growth of watermelons and cantaloupes. Peaches and grapes are proven fruits.

Deposits of limestone for building purposes exist, but have not been developed.

There are 55 miles of surfaced highways, which cost an average of $\$ 2.500$ per mile. Precinct No. 1 has issued $\$ 150.000$ in bonds, the proceeds of which have been devoted to paving roads. Roads in Taylor County are naturally good, but are being rapidly improved.

A large acreage of good farming land is available for new settlers, the prices ranging from $\$ 15$ to $\$ 20$ for unimproved and from $\$ 20$ to $\$ 60$ for improved lands well $10-$ cated.

## TERRELL COUNTY.

Situated in Southwest Texas, bordered on the south by the Rio Grande; created in 1905 from Pecos County and organized the same year; area 2,776 square miles: named for A. W. Terrell; population 1,430 in 1910 . Sanderson, the county seat, is an unincorporated town with a population estimated at 1,000 . It is served by the Galveston, Harrisburg and San Antonio Railroad.

The surface is broken by long ranges of mountains and cut by canyons and with high mesas on all sides. The Pecos River forms a portion of its eastern boundary. The Rio Grande forms its southern boundary. Both of these streams flow through deep canyons which are inaccessible with the exception of one or two places, the crossings being possible only by burros. There are no living streams within its borders. Well water is found at depths averaging 1,000 feet. The rainfall averages 14 inches per annum.

The valleys have rich, deep soil and are very productive when provided with sufficient moisture. The upland country is very rocky and unfit for cultivation. A large area is adapted to grazing, and the
raising of sheep, cattle, horses and goats is the principal occupation of the people. The sheep industry is especially important and Sander. son is one of the important wool shipping points of Texas. There is an abundance of building stone, but it is used only locally.

Several important manufacturing plants, adapted for utilizing the various plants peculiar to this sec. tion, are being located at Sanderson. Among these is a factory for extracting wax from the candelilla. Another company has been formed which will erect a ractory for the purpose of converting the lechaguilla plant into twine, rope and sacking. The guayule is abun. dant in the section tributary to Sanderson and a rubber factory is in prospect. Sanderson is un important freight and passenger division point on the Galveston. Harrisburg and San Antonio Railroad. Lands in Terrell County are quoted at $\$ 2$ to $\$ 6$ per acre.

## TERRY COUNTY.

One of the Plains counties of Northwest Texas; created in 1876 from Bexar County and organized In 1904; named for Col. Frank Ter ry; area 828 square miles; population 1,474 in 1910 and 48 in 1900 Brownfield, an unincorporated town, is the county seat and chief city; Gomes is another town. There are no railroads.

Terry County is slightly rolling, broken only by a few draws and basins. There is no timber and no living streams. An abundance of water, however, is secured at a depth of 100 feet. The average rainfall is 20 inches per annum. fairly well distributed. The mean minimum winter temperature is 25 and the mean maximum summer temperature is 85 degrees.

The soil is largely red sandy loam. Live stock is the leading industry. Some farming is practiced. Kaffir corn, corn and cotton are staples. Apples do well and considerable attention is being given to small orchards of peaches and small vineyards of grapes.

Improved farm lands are quoted at $\$ 10$ to $\$ 20$ per acre; unimproved lands at $\$ 5$ to $\$ 10$ per acre. With better transportation facilities Terry County citizens look forward to a great development of the agricultural resources.

## THROCKMORTON COUNTY.

Situated in North Texas, west of central; created In 1858 from Fannin and Bosque Counties and organized in 1879: named for 179. William E. Throckmorton; area 821 square miles; population 4.56.3 in 1910, as compared with 1,750 in 1900. Throckmorton, the county
leat, is an unincorporated town. Woodson and Springcreek are other towns. There are no rallroads.
The surface is generally rolling. The southwestern part is somewhat broken and hilly, altnough there are large bodies of level table land. It is sparsely timbered with mesquite and elm. The Brazos River crosses the northeastern corner, IAlm Creek passes through the center from west to east, while Paint Creek and tributaries cross the southwestern corner. The underground supply of water is found at depths of 30 to 150 feet. The rainfall approximates 24 inches per annum.
A large acreage is susceptible of cultivation and the balance is fine grazing land. The soil is generally fine sandy loam, with some sandy, and is very productive when sueficient moisture is applied. Live stock raising is the leading industry. Considerable attention is being paid to the improvement of the stock on the ranges and old-time animals have about disappeared. The leading crops consist of cotton, wheat. oats, corn and milo maize. Many of the farmers and ranchmen have small orchards of peaches and other fruits, but the industry has not been developed on a commercial basis.

Coal has been discovered in the eastern portion. There are also traces of oil and natural gas. Many large pastures in the northwest part are being cut into 160 -acre tracts and placed upon the market. Many new settlers are arriving to assist in the development of the county's resources. Iands are quoted at $\$ 8$ to $\$ 30$ per acre.

## TrTUS COUNTY.

Situated in Northeast Texas; created in 1846 from Red River and Bosque Counties and organized the same year: named for one of the early settlers; area 421 square miles; population 16.422 in 1910 and 12,292 in 1900 . Mount Pleasant, the county seat, had a population of 3,137 in 1910; it was unincorporated at the time of the twelfth United States census. Winfield and Cookville are other important towns. It is served by the st. Louis Southwestern, the Missouri, Kansas and Texas and the Paris and Mount Pleasant Railroads.

The surface is slightly rolling, enough so for sufficient drainage, but not so broken as to make any part of it unfit for cultivation. About one-third of the area is in cultivation and pasture; the balance is covered with a heavy growth of pin oak, wainut, ash. maple and other varieties of hardwood and with
short leaf pine. The greater portion of the timber is large and well adapted to farm buildings and manufacturing purposes.

The soll in the valleys and along the streams is a deep rich sandy loam and on the uplands a gray sandy. Both are very productive. The county is well watered by innumerable never-falling springs and small streams. The larger streams are Sulphur River, which forms the northern boundary, Big Cypress, White Oak and Hart Creeks. Underground water is available at depths varying from 25 to 40 feet. The average rainfall approximates 44 to 48 inches per annum.

Diversified farming, fruit and truck growing are the principal occupations of the people. A large artrage is devoted to tomatoes and r, $\in$ achis, which are shipped in carload ?ots to various markets.

Valiable deposits of lignite exist and is mined not far from Mount Pleasant. Brick and pottery clay are plentiful and are utilized by plants near Winfield and Mount Pleasant.

The opportunities for homeseek. ers are many and attractive. Improved farm lands are quoted at $\$ 15$ to $\$ 30$ per acre; unimproved lands at $\$ 5$ to $\$ 8$ per acre.

## TOM GREEN COUNTY.

Situated in West Texas; created in 1874 from Bexar County and organized in 1875; named for Gen. Tom Green; area 1,363 square miles; population 17,882 in 1910, as compared with 6,804 in 1900 . San Angelo, the county seat and chief city, had a population of 10,321 in 1910. The city was unincorporated in 1900. Water Valley, Wooland. Knickerbocker and Christobal are other important towns. It is served by the Gulf, Colorado and Santa Pe, the Kansas City, Mexico and Orient and the Concho, Llano and San Saba Valley Railroads.

The surface is slightly broken, but there is much prairie land. A thin growth of mesquite timber covers a portion. The soil is generally a rich, brown chocolate loam, though in the valleys it is a rich alluvial formation of a black waxy composition. The Concho system of water courses pass through the central portion. This system is composed of the North, South and Middle Concho Rivers, with their tributaries. An abundant supply of underground water is found at depths ranging from 50 to 200 feet. A part of the waters of the Concho River and the Dove and Spring Creeks are diverted into irrigation ditches, and about 5,000 acres are thus cultivated. Plans for other irrigation systems have been announced. Al-
falfa is the lesdins crop in the irrigated district. The rainfall approximates 80 to 22 inches per annum.

Tom Green County has always been one of the prominent cattle counties of the State, which industry continues to take precedence over all others. Interest in irrigation is growing and the acreage in cultivation by these methods is increasing. Cotton is a leading crop outaide of the irrigated district, and diverified farming is becoming more prominent. All West Texas staple crops are successrully grown in ordinary years. Conditions in the live stock industry are growing better. Old range stock has entirely disappeared and the ranches and farms are now stocked with improved breeds of cattle, sheep, goats, horses and hogs. A number of ranchers are paying es. pecial attention to the breeding of blooded animals.

Deposits of brick clay have been developed and a large brick factory is operated at San Angelo. There are also many traces of oil and some development work has been done.

San Angelo is one of the important West Texas cities and draws trade from a large territory. It is the site of a large number of manufacturing industries and is quite important as a wholesale and distributing point.

Land susceptible to Irrigation is quoted at $\$ 20$ to $\$ 50$ per acre and other lands are quoted at $\$ 10$ to \$15 per acre.

TRAVIS COUNTY.
Situated in South Central Texas; created in 1840 from Bastrop County and organized the same year; named for William Barrett Travis; area 1,036 square miles; population 55,620 in 1910, as compared with 47,386 in 1900. Austin, the capital of the State, county seat and chief city, had a population of 29,860 in 1910 and 22,258 in 1900 . Other important towns are Manor, Littig and Manchaca. It is served by the Missourl, Kansas and Texas, the International and Great Northern and the Houston and Texas Central. An electric line to San Antonio has been surveyed.

Travis County is on the dividing: line separating the hills from the prairie land. The western half is rolling and mountainous, while the eastern half is comparatively level and fertile. The hills in the western half are covered with cedar and oak. The Colorado River crosses from the northwest to the southeast and numerous tributaries provide excellent drainage and afford an abundant supply of water. Artesian water exists at a depth of 1,600 feet; surface water
at much shallower depthe, The rainfall approximates 33 inches per annum.

The Colorado River is the source of water for the irrigation of about 1,500 acres. Approximately $\$ 100$,000 is invested in irrigation plants and systems. The principal irrigated farm is known as the Walker farm, consisting of 1.000 acres, two miles below Austin. The prin. cipal crops on this farm are Mexican pepper, garlic and other forma of truck, which are used in a large canning factory located on the place. This farm also has 1,000 hogs and about 1,500 blooded chickens.

The soils consist of sandy loam in the Colorado Valley and black waxy on the uplands in the eastern halif. The Colorado Valley is exceedingly fertile. In the vicinity of Austin and other railroad towns nearly all the available land is in cultivation. In other sections the live stock interests predominate, although farming is attempted in a small way by cattlemen and others. The usual staple crops, such as cotton, corn, oats and feedstuffs, are grown. Truck and frult farms are becoming numerous in sections convenient to markets.

Deposits of brick clay exist and a brick plant is operated at Austin. Traces of oil and gas have been reported.

Austin 18 a thriving city, the seat of the State Government and prominent because of its many State instirutions, among which are the University of Texas, schools for the deaf, dumb and blind, both white and colored, an insane asylum, Confederate home and many State and Federal courts. The city is also growing commercially and expanding its trade in adjacent territory.

Large areas of good land are unoccupied and settlers find a welcome. Lands are quoted at prices of $\$ 25$ to $\$ 75$ per acre.

## TRRINITY COUNTY.

Situated in Fast Texas; created in 1850 from Houston County and organized the same year; named for the Trinity Rlver; area 704 square miles; population 12,768 in 1910. as compared with 10,976 in 1900. Groveton, the county seat, is an unincorporated town. Trinity, Saron, Pennington, Felmic and Centralia are other important towns. It is served by the Missouri, Kansas and Texas, the Beaumont and Great Northern, the International and Great Northern, the Eastern Texas, the Groveton, Lufkin and Northern and the Texas Southeastern Railroads.

The general surface is undulating, rising occasionally into low hills, with here and there a level
stretch of prairle. Along the creeks are narrow valleys studded with a dense undergrowth, while the rivers are bordered by wide. level bottoms, with occasional ridges running back into hammock land. About nine-tenths of the area was originally covered with long leaf, short leat and loblolly pine, walnut, hickory and various kinds of oaks and other hardwoods. At the present time it is estimated that there are $2,000,000,000$ feet of merchantable timber, most of which is controlled by large lumber companies. The lumber industry employs a large number of men. It is watered by numerous intermittent and perpetual springs and by the Trinity and Neches Rivers, with their many tributaries. There is a chain of sulphur springs through the county, which possess medicinal propertles. Numerous small lakes dot the surface. Artesian water exists at depths ranging from 600 to 800 feet; surface water is found at much shallower depths. The rainfall will approximate 47 to 50 inches per annum.

The uplands are mainly sandy loam and stiff black waxy soil. Some light and red sandy soll is found in the timbered section. Although there are no large ranches, the IVVe stock industry is important. A large acreage is given over to cotton, corn, potatoes, peas, peanuts and various forms of truck. Horticultural products consist of berries, melons, figs, grapes and peaches. Many farmers have small apiaries and provide the local markets with honey. Practically all farmers are interested more or less in the poultry industry.

Deposits of lignite, asphalt, salt, chalk and sulphur have been located, but remain undeveloped. There are also deposits of clay suitable for the making of brick.
The precinct in which Groveton is situated has issued $\$ 40,000$ in bonds, the proceeds of which have been devoted to the construction of paved highways. Other precincts are taking an interest in the good roads question.

Only a small per cent of the arable land of Trinity County is in cultivation. Improved farm lands are quoted at $\$ 10$ to $\$ 10$ per acre; unimproved lands at $\$ 10$ to $\$ 25 \mathrm{per}$ acre.

## TYLER COUNTY.

Sltuated in East Texas; created in 1846 from Liberty County and organized the same year; named for President John Tyler; area 925 square miles; population 10,250 in 1910. Woodville, the county seat, is an unincorporated town. Warren, Rockland and Doucett are other towns. It is served by the Texas and New Orleans, the Mis-
sourl, Kansas and Texas and the Warren and Corsicana Pacific Railroads.
The surface is high and rolling in the northern and level plain in the southern portion. It is heavily timbered with yellow pine, white oak and magnolia. It is bordered on the east by the Neches River. A number of creeks traverse the county and furnish good drainage. The underground supply of water is reached at a depth of about 50 feet. Considerable work of reclaiming overflowed land has been done along the Neches River. The rainfall averages 38 to 40 inches annually.
The soils consist of light sandy on the uplands, with a large area of rich black land along the rivers and creeks. There are scattered areas of stiff black land in different portions. The sandy soll, and especially that which is known as piney woods land, has a clay foundation. This land is particularly adapted to fruits and vegetables. which grow luxuriantly without fertilization. The black lands produce large crops of cotton, corn and otherstaples in ordinary years. The sandy lands, under proper cultivation and fertilization, are also very productive of Elast Texas staples.
Cut-over pine lands are proving valuable and are being brought into cultivation. Practically threefourths of the total area is available for neve settlers. Lands are cheap and easily obtained. Improved farm lands are quoted at $\$ 20$ to $\$ 25$ per acre; unimproved lands at $\$ 5$ to $\$ 10$ per acre.
Deposits of fine sandstone and brick clay are found, but undereloped except for local use. There are traces of oll and some prospecting has been done.

## UPEETUR COUNTY.

Bituated in Northeast Texas; created in 1846 from Nacogdoches and Harrison Counties and organized the same year; named for Abel P. Upshur; area 527 square miles; population 19,960 in 1910 and 16,266 in 1900 . Gilmer, the county seat. had a population of 1,484 in 1910 and was unincorporated in 1900. Big Sandy, Bettie, Latch, Smith, Simpsonvilie, Ada, Glenwood, Eweli and Coffeyville are other important towns. It is served by the Missourl, Kansas and Texas; Texas and Pacific and St. Louis Southwestern Rallroads.

The surface is undulating, sloping from northwest to southeast. on the west and northwest the lands are generally level, on the northeast and southeast they are hilly and broken. while on the south. east and north they are undulating. It is one of the best
unties in mbered and watered counties
e State and is the natural home $r$ various oaks, hickories, pine,
veet and black gum, dogwood, veet an
h, waln
oods.
The soll is composed of a dark ndy, a red sandy and light sandy, ith occasional stiff black waxy
nd. The Sabine River, Big Sandy, no.
nly, Kelsy, White Oak, Big Cy-
cess and various other creeks furish exeellent drainage. Well waor can be obtained at a deptings
to 75 feet. Everflowing springs
Elt all found in all parts. The rainer approx
It is in the fruit belt or Texas f peaches, plums, pears and small ruits. The soll and climate are
lso excellently adapted for truck
lally 1so excellently adapted for truck
nd large quantities are annually
lars. hipped to market centers. The nelon crop is important. ne of the leading staple crops,
orn ranks second, while oats, sorhum, ribbon cane, alfalfa and vaious other crops produce abunc-
ntly. Peanuts are becoming a ntly. Peanuts are becoming a
eading article of production on aany farms. While not generally onsidered a live stock county, the
wine industry is attracting a great wine industry
eal of attention and many farm-
ind rs are intersosted many fine beef and lairy animals, mules and horses in 11 sections.
ives employment to many men.
There are large deposits of iron There are large deposits of iron
and some good quality brick clay. Good lands are exceptionally easy o obtain at moderate prices. Ther
s room for many new settlers.

UPTON COUNTY.
Located in West South west Texas; created ond organized in 1910 : named for John and W. F. Upton; area 1.190 square miles, popland, an unincorporated town. is the county seat. It is served by the Railroad. The northern portion is level, the The northerri portion is level,
southern portion rolling and hilly. Mesquite is the only timber found
There are no running streams, but water is found at a depth of 50 to 8 to 12 inches annually. Live stock is the has been found at a
try. Salt has hot
denth of 1,500 feet, but has not been mined. Upton County lies in the area in
which, in 1910 and 1911, Water in which, in 1910 and
sufficient quantities for irrigation
purn sufficient quantiveloped Although
purposes was develigation is practiced on a small scale only, tests wells will undoubtedly prove that this section
will in the future join the list of

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counties in which irrigation farm ing is successfully practiced. $\$ 6$ to $\$ 8$ per acre.

## UVALDE COUNTY.

Situated in Southwest Texas; ty and organized in 1856; named for Jose Uvalde; area 1,759 square miles; population 11,223 in 1910
and 4,647 in 1900 . Uvalde, the county seat and chief city of the county, had a population of 3,998 in 1910 and 1,889 in 1900. Sabinal, another important town, had a population of 1,640 in 1910 , It is
served by the Galveston, Harrisburg and San Antonio and the Crystal City and Uvalde Railroads, now known as the San Antonio
Uvalde and Gulf. The southern portion is level, the northern part mountainous, with many rich valleys between the ranges. tributaries, which include the Sabinal River, Blanco and East and West prongs, flows north and south through the eastern part south through the "western por tion. On the Nueces, Frio, Sabinal and Leona Rivers there
water power of considerable capacity, but it has never been utilized. soil below the mountains is mostly a rich black and some
sandy loam. Along the stream irrigation is practiced to some ex tent, there being about 2,000 acre in cultivation. The prairie land in the southern pord sandy and loams and are covered with various nutri
tious grasses, which make them tious grasses, which make then
valuable for grazing. Large quan valuable for grazing. Large quan the mountains, while mesquite, hiv oak, sycamore, hickory, ash an
other hardwoods grow along the other courses, with clumps here and there on the prairies to 25 inches per annum. industry ranks all others, but farming is attract ing attention, and in ordinary years all staple abundantly. abundantly,
The bee and honey industry has
and grown to large proportions shows 18,657 swarms of bees in this
county. The city of Uvalde has the distinction of being the greatest honey shipping station in the United States. found in the several large caves in which there are large quantities of guano. This riarge guantige quantiUvalde County is making con-
siderable progress along agricul-
tural lines and is becoming imturalant as a producer of onions. Some attention is arters, but only hortigh fruit is grown to supply the home demand. Figs, peats. and plums are proven fruits. The Angora goat flocks are pasbred in the mountain sections. great deal of attention is given the breedins. and horses. mineral deposits the most important is asphald is of a is found in abundance anits of limevery fine grade. andstone have been discovered, but remain und been oped. Traces of oil have
found near the asphalt many natural resources which, when population will add largely to the pop.

VAL VERDE COUNTY.
tuated in Southwest Texas on Situated in Southwes created in the Mexican Kinney, Crockett and Pecos Counties and organized square same year area 3,034 squand miles; population Del Rio, the county seat, is an unincorporated town with an estimated populationes-
4,000 . It is served by the Galvenio ton, Harrisburg and San Antonio Railroad.
of attention is given to the bee has grown to and is becoming of greater importance each year. Figs, grapes, pears, quinces, peachut only enough are proven fruits, buply local demands.
Several sehemes have been evolved to irrigate large sections of Val thes the waters of the Devil's River. It is planned to canads conriver and by means of canads 60,000 duct the water to sed to irrigation. Engineers have pronounced the plan feasible, done
nothing has been done. from Irrigated land is quoted from $\$ 100$ to $\$ 200$ per are quoted from $\$ 1.75$ to $\$ 5$ per acre.

VAN ZANDT COUNTY.
Situated in Northeast Texas, Situated in Northeast created in
southeast of Dallas; creunty and southeast
1848 from Henderson County and
organized the same year; named organized the same year, area 877 for Isaac miles; population 25,651 in square manton, the county seat, is
1910 . Cant unincorporated. Wills Point, chief city of the county, had population of heeler and Edgewood are other important and Pacific served by the Texas and
and the Texas Short Line Railand the rexas short road. surface is generally level, the general surface is laleys of and broken, with Pecos River flows through the western part and Devil's River flows from north and south through the Rio Grande forms the southern boundary. These streams are an uncans of source of water at all seasonderthe year. An abund found at depths varying from 200 to 600 feet. The rainfall averages ${ }^{\text {annum. San Felipe Springs, near }}$ annum. San among the largest in the Southwest. It is estimated that the flow from these springs will irrigate approximately five hunacres. Eight thousand acres are irrigated and in cultivation. in the valleys are rich The soils in the valive when supand very with, the proper amount of moisture. A considerable acreage along the Rio Grande is suscertle is practiced. With the exception is practicedigated sections very little farming is done. Ner to the the county is given suer shep and live stock being raised in large numbers. The production of mohair and wool in to be larger than in any other said to be larger than A great deal but slightly rolling in some sections. The eastern portion is weak, gum and pine. A number of creeks and tributaries of the Neches River furnish good an abunage and stock water. And water is found at a depth of thirty-five feet. There are also a number of springs from which sainfall will approximate 37 inches per annum. In the western portion black and gray sandy loan a dark sandy loam About nine-tenths is adapted to farming and approximately one third is now under cultivation, part large acreage in the Diversified farming is practiced successiuly, the chief crops being cotton, coraoats, ribbon cane, $n$ nuts, peas, potaes and many vanuts, peas, fruits and vegetables. rill East Texas staples do well. Peaches, apples and plums have been successfulive stock raising is conducted along with general farming. $\quad$ aluable deposits of salt are $10-$ cated at Grand Saline. Lignite is mined at Edgewood. Deposits of med at Edgewood. Deposits
on ore exist, but have not been veloped. The county also conins deposits of brick and pot-
y clay.
A large acreage is available for A large acreage is available for
w settlers. Improved lands are oted from $\$ 10$ to $\$ 50$ per acre; improv

## VICTORIA COUNTY.

Situated in the West Gule Coast untry, touching Lavaca Bay at e southeast corner; one of the nized in 1837; named for GuadaVe Victoria; area 883 square
les; population 14,990 in 1910 . ctoria, the county seat and chief $y$, had a population of 3,673 in
Nursery, Telfener, Aloe, oomington and Placedo are Louis, Brownsville and Mexi Antonio and San Antonio and ansas Pass Railroads. The surface is gently undulatbroken only by valleys and annels of the rivers and creeks. out one-fourth is covered with nber much of which is along the
tadalupe River. This timber nsists of various kinds of hardlods. The Guadalupe and San cies, furnish excellent drainage d an abundance of water. An undant supply of underground iter is found at moderate depths. 37 inches.
he solls are of many varieties, the solls are of part black waxy
d black alluvial, both very proctive. Considerable black sandy im is found on the prairies. The cotton, corn and sugar cane, tton is becoming a staple erop e other Texas colimatic conditions lopment of the fruit and truck lustry. Although diversified ming and the growing of all all sections, the acreage devotto vegetables and fruits is inShipments in car
eased yearly. lots are the rule. Figs have id lots are the rule. Figs have
nost a natural growth and have oved a success wherever tried. tall fruits, such as strawberries, eld a regular annual revenue rious kinds of grapes have been
own and small vineyards of own and small vineyards of
iny years of age have demon-
ated the possibility of this in--ated the possibility of this instry. A number of farmers and
lividuals not engaged in farm. have become interested in the uttry industry and many cal
uets are shipp
large markets
Victoria County is an invitie field for homeseekers. Lands arg offered at prices varying from $\$ 20$ sufficient acre. There is always ply the demand.

WALKER COUNTY,
Situated in Southeast Texas created in 1846 from Montgomery
County and organized the same County and organized the same er; area 754 square miles; popul er, area
tion 16,061 in 1910 . Huntsville, the
county seat county seat and chief city, had a population of 2,052 in 1910 . Dodge, other important towns. It is served
by the International and Great Northern, Trinity Valley Southern and Beaumont and Great Northern
is greater part of the surface is rolling and hilly, with some level prairie, various oaks, walnut sycamore, gum, elm and cedar, providing raw material for numerous mills. There is also an abundance the northern portion; the San Jacinto River and a large number of creeks provide splendid drainage. Artesian water exists at a depth
of 500 feet. The rainfall is 43 inches per annum. The soils are various, running from a sandy to a stiff black, with alluvial soils
along the rivers and principal water courses. Cotton and corn are the staple crops. Large yields of sweet and Irish potatoes, peanuts, peas, oats, sugar cane and
alfalfa are secured in seasons. Fruit growing is not a prominent industry, but peaches, plums and grapes all do well. in the development of the agricultural resources. Interest is being try. Deposits of lignite ond fuller's earth exist. There are also traces of oil. Large deposits of valuable sandstone have been located, oped. Various forms of fire clay and red ochre and some glass sand have been found stions Building serent tions. Building stone has been It is gray in color and has tested 142 pounds density
Citizens take a great interest in their rural schools and have made many improvements during the making great improvements in their farm buildings and country
homes are being remodeled and made more attractive.
Huntsville is prom
Huntsville is prominent as an
educational center. Here is found educational center. Here is found
the Sam Houston Normal School,
the oldest school of its kind in
The State. The State penitentiary the State. The State penitentiary is also located in thound hardwood lumber manufacturing, next in mportance to agriculture. tracts to suit. Prices range from tracts to suit. $\$ 10$ to $\$ 40$ per on improved
$\$ 10$ to lands and from

WALLER COUNTY.
Situated in Southeast Texas: created in 1873 from Grimes and Austin Counties and organized the same year; named for miles Waller; area 510 square Hemppopulation county seat, is an un incorporated city with an estimat ed population of ${ }^{2,600 \text {. Wan are }}$ Brookshire and Patterson are Brookshire and towns in the county. It is served by the Houston and Texas Central and RailMissouri, Kads.
road The surface is rolling, with much level land in the southern portion. It is well supplied wood imber, oak, ash, elm, cottong vaand waln. It is drained by the Brazos River, Clear Creek, Lang and Mile Creek, Irons Artesian water exists at a depth of 1,100 feet; surface water at an averainfall ap of fifty feet. The ration Irrigation is practiced to some extent.
The soils are various; a rich dark alluvial and along other sos bottoms the uplands are dark sandy loam, with some black wax in the center and other portions Diversified farming leads and other occupationsicularly adapted to the growing of melons, and thousands of car Hempstead. All forms of truck are grown and marketed in car load lots. Cotton crops. corn are the in the southeastern Rice is grown pears, figs and peaches portio proved a success in a sming way, but thus far fruit growing has been only incid. A number of the farmers pay especial attention to the breeding of dairy cattle and large quantities of dary are shipped poultry industry is also proving very shipped to outcar load markets. best truck lands are side markets. best truck lands are
Some of the bed. A large acreage yet undeveloped. new settlers. Im proved farm lands are quoteding to $\$ 10$ to $\$ 50$ per acre, according $\$ 5$ to $\$ 20$ per acre.

WARD COUNTY
Situated in West Texas in the
lower Pecos Valley; created in 1887 from Tom Green County and organized in 1892; named for Thomas William Ward; area 858 square
miles: population 2,389 in 1910 , as miles; population compared with 1, 451 in 1900. Barstow, the county seat and chief city, is unincorporated. It is served by the Texas and Pacific Railroad except in some sections, where there are small hills and rolling ands. There is very little timber, but considerable scrub mesquite, and plants. Along the Pecos River, which forms the west and southern boundary, the mesquite growth is large
In some sections a splendid unIn some sections a splendid un at depths varying from 70 to 200 feet, but in various localities it is more difficult to secure an adelight, oftentimes registering less than 10 inches per annum, but than 10 inches per annum, but with an average Notwithstanding the ligh inches. Noinfail, this section has been, and is now, prominent in the cattle industry. The short grass and the plant life seem and palatable to cattle and they thrive on ranges which to a stranger in the country. to a stranger in the country. more noted for its irrigation the The than for its cattle industry . The
soil of the Pecos River Valley, soil of the Pecos River Valley,
both the lower and upper shelves, is rich alluvial, the washings of centuries, and exceptionally productive when water is anplied. ago, and advantage was taken of the Pecos River to construct irrigation systems, which made pos15,000 and 20,000 acres by irrigation within the limits of the county in 1913 and as much more trade territory. There are many thousands of acres yet unirrigated which may be brought into culti vation when plans and construcwater materialize. Many thousands of dollars have been expended and contracts calling for many A reservoir system is to signed. A reservich will hold the winter run-off of the river and
conserve flood waters, adding a conserve flood waters, adding a
large area to the irrigated acreage.
age.
Alfalfa is the big erop in the
irrigated section. Alfalfa seed and irrigated section. Alfalfa seed and hay are very the acreage of feed-
of commerce. The
stuffs shows an annual increase of commerce. The acreage increase
stuffs shows an annual

TEXAS COUNTIES.
the breeding and fatteni
ine is a growing industry. ine is a growing industry. pportunities for fruit produceage of grapes and many peach, er, apricot and plurn orehards.
rd County grapes have a repu-
gra ion for color. size and quality ced in the country. Other fruits The mineral deposits of this secn have never been exploited, t it is known that there are de-
sits of various chemicals, inding borax, gypsum, sulphate d sulphide of soda. Grazing lands are comparatively eap. Irrigated lands vary in In some cases values reach the present irrigated fields
which will undoubtedly be ached by the improved systems

WASHINGTON Councr.
Situated in Southeast Texas; one the original counties of Texas; ganized in ashington; area 568 uare miles; population 25,561 in 10. Brenham, the county seat chief city, had a popul Hill,
4,718 in 1910 Chappel He Hen Hill,
arton, Independence, Gay Hill reenonine, Washington and Wilam Penn are other important and Texas Central and the alf,
The surface is rolling, with much vel land. Post oak, ash, pecan
vd walnut are the leading variees of timber. It is drained by Brazos River, which borders
east; the Yegua River on the le east; the Yegua River on the
orth and by New Year's Creek,
Wordsworth orth and Wordsworth Creeks,
hill
hich pass through the county. hich pass through the a depth
rtesian water exists at a rtesian feet; an abundant supply surface water is secured from
hallow wells. About 8,000 acres rich bottom lands along the razos River have been drained
nd reclaimed from overflow by ne building of dykes at a cost of
57,000 . The rainfall averages ap57,000. The rainfach averages ap-
roximately 40 inches per annum. roximately 40 inches per annum. n the prairies to sandy loam, rith rich black loam in the bot-
oms. Diversified farming and
and oms. Diversified farming and
ruit growing are leading indus
ries, supplemented by the breedruit growing are
ries, supplemented by the breed-
rine cattle, horses, hogs ng of fine cattle, horses, hogs
nd sheep. A creamery is sucnd sheep. A cream at Brenham.
essfully operated fany farmers dispose of their mik orticultural products include figs, lums, peaches, pears and ale an-
nual shipments of large quantities ket for poultry products has been established at Brenham. able deposits of lignite, which is mined near Ledbetter. Limestone is quarried for building purposes and Fuller's earth is iound harton. Brick clay exists in large quantities, a large brick plant being operated at Brenham, The a vestige of which remains, was formerly the seat of government of the Republic of Texas. Much
of historical interest centers of historical interest
around this old town.

WEBB COUNTY
Situated on the Rio Grande, four counties removed from its mouth; San Patricio Counties and organized the same year; named for James Webb; area 3,421 square
miles; population 22,503 in 1910 . miles; population 22, seat and chied city, had a population of 14,855 in 1910. Nye, Pescadito, Aguilares, Ojutalos and Minera are and International and Great Northern, Rio Grande and Eagle Pass and Texas
Mexican (Mexican National) Railroads. It has a frontage on the Rio It has a frontage on the Rio
Grande, including the meanderings of the stream, of 125 miles. level and extends about eighty miles north and south. These level portions are nearly all in pasture The Rio Grande alluvial deposit and the soil is anywhere from three to twenty feet deep, of which there is estimated to be 40,000 acres. The hilly and is composed mostly of stiff black soil. The level places lying along these hills are very produc-
tive if afforded a moderate amount of water. The level belt forming the eastern portion is a heavy sandy loam, ranging in color from a dark gray to almost red. With
the exception of mesquite, there is no timber. The rainfall averages 17.80 inches per annum. Artesian water can be secured at southern portion. In the northern portion of the eastern belt water can be found at depths of 50 to in thirty to forty feet of the top of the wells. Stock raisers follow the practice of building dams the purpose of impounding water the purpose of impounding water tracts.
Irrigation is extensively practiced along the Rome twenty irrigation plants in operation, which are capable of

3,500 acres. These systems represent an approximate investrop is the Bermuda onion, shipments varying from 1,700 to 2,000 cang loads per annum. market, and as a rule sell for top prices in the Northern and Eastern matoes and Melons, cantaloupes, tomatoes and
all other varieties of truck are grown in large quantities and shipped in car load lots to is exmarkets. profitable some seasons. ceedingle of the irrigated section live stock raising is the chiel are Valuable deposits of coal are
found and mined at Minera and San Jose. There are large deposits of brick clay and of line sand at stone. Bricks are manufacturedid
Laredo. The natural gas field near Laredo furnishes an unlimited supply for manufacturing probposes, piping this gas to San Antonio has been discussed, but no action taken. Laredo is and enjoys a large international trade.

## WHARTON COUNTY

Situated in the Gulf Coast country, one county removed in 1846 from Matagorda and Jackson Counties and organized the same year; named for William $\quad$ Wharton; area 1,137 square miles; population Wharton, 1910 and 16,942 in 1900 . Wharton, the county seat, had a campo, the of chief city, had a population of chief city, 1910 . In the incorporation of these two cities a portion of the original unincorporated incorporated Was limits, due to opposition to city government. Glen Flora, Louise, East Benard, Lane City, Lissie and Pierce are other important the Galveston, Harrisburg and San Antonio, Gulf, Colorado and Santa Fe and Rail Anton.
roads.
The surface is level, with a gentle slope to the south and east and only slightly rolling along the margins of the of live oak, pecan elm and other hardwood for the operation of small sawmins. directly Colorado from north to south, while through Brom Benard, West Benard Peach Creek, Caney, various other Blue Creek arnish an abundance of streams for all purposes. Drainage in many sections is excel fine sys is being improved by a fine sysconstruction of druthage wher-
such drainage systems in opera-
tion. tion. A large district is devoted gation necessary. The rainfall approximates 35 to 40 inches per annum. An excellent well water from ound at depths-five feet; artesian water at 300 to 1,500 feet. The soil on the uplands varies from a silght sandy to black sandy and hog wands red sandy and black alluvial soils predominate. The Caney Valley, extending across the count is from northwest two to six miles wide and is almost unsurpassed for fertility Cotton, sugar cane, potatoes, fruit grow luxuriantly and have an excellent flavor. Potatoes are
coming the leading crop in many sections. Cotton, corn, rice, pecan. and many kinds of fruit are shipped in large quantities. The entire county seemsies. The fig is to grapes The live stock industry is overshadowed by the rapid development along agricultura a speMany farmers are making a specialty of raising turkeys, geese, and many thousands are shipped each season. The sugar cropils important and several sugar mills
tions. movement in real estate The movement in real estate during the last prices have gone up accordingly; however, improved farm lands can be purchased at a price ranging from $\$ 40$ to $\$ 100$ per acre and unimproved
$\$ 10$ to $\$ 25$ per acre.

WHEELER COUNTY
Situated in the northeastern Situated in the northeastern
part of the Panhandle; created in 1876 from Bexar and Fannin Counties and organized T. Wheeler; area 851 square miles; popula er; area 5,258 in 1910 and 636 in 1900
tion
Wheeler, the county seat, is an Wheeler, the county seat, is an Benonine, Ramsdell and Mobeetie Beno other towns. It is served by the Chicago, Rock Tsland and Gulf Railroad.
The surface is generally rolling. It is devoid of timber. Drainage is obtained through the North
Fork of the Red River, Gagsby, Fork of the Red River, Gagsby,
Sweetwater and Broncho Creeks. Sweetwater and Brond supply of A gater is obtained at depths of 50 to 250 feet. The rainfall will average aper annum. vary from black loam
per
The soils vary to sandy loam. Live stock raising is the leading occupation ol development is progressing. A darge acreage is being devoted to
alfalfa and broom corn with great success. Horticultural products, such as apples, pears, grapes and plums, are cound in many small orchards and vineyards. Interest in iruit growing is increasing and orchards of considerable size are being planted.

Improved farm lands are quoted at $\$ 15$ to $\$ 35$ per acre; unimproved land from $\$ 5$ to $\$ 15$ per acre. Valuable deposits of red sandstone and brick clay are found, but are undeveloped.

## WICHITA COUNTY.

Located in North Texas; created in 1858 from the Young Land District and organized the same year; named for the Wichita River; area 606 square miles; population 16,094 in 1910, as against 5,806 in 1900. Wichita Falls, the county seat and chjef city, had a population of 8,200 in 1910 and 2,480 in 1900. Burkburnett, Electra and lowa Park are other important towns. It is served by the Fort Worth and Denver City, the Wichita Valley, Wichita Falls and Northwestern, Wichita Falls and Southern, Wichita Falls and Oklahoma and the Missouri, Kansas and Texas Railroads.

The surface is mostly undulating prairie, with a small amount of broken country and river valleys. Hackberry, elm, cottonwood and pecan trees are found along the water courses. It is drained by the Red River, which borders it on the north, and the Wichita River, with its tributaries. Good water is found at a depth of 25 feet in many sections. The rainfall averages 30.65 inches per annum, which is sufficient in ordinary geasons for the production of all staple crops. About 2,000 acres of land near Wichita Falls are irrigated from water taken from Lake Wichita. A larger acreage is available for irrigation.

The soils vary from sandy loam in the valleys to a stiff clay on the uplands. About one-fourth of the land is under cultivation.

Ranches occupy a large area in the northern and western portions. On these are grazed many thousands of well-bred cattle. There is also a large acreage under cultivation in feedstuffs in the cattle-raising sections. In the eastern portion and in the vicinity of railroads and market points the farmer has taken possession of a large acreage which was formerly pasture lands, and is growing wheat, corn, broom corn, Kaffir corn maize, oats, sorghum, other staple field crops, fruits and vegetables. Stock raising on the farm is general, the tendency being toward the best grades of beef and dairy animals, wool and mutton sheep.

The Electra oil fields, near the
western border, have been devel. oped rapidly and are now known as the most important in the Southwest. New wells miles digtant from the first one brought in have proved the field to be very extensive. Other mineral resourceg consist of large and valuable doposits of brick and pottery clay. The deposits near the city of Wich ita Falls are being developed, three large plants with a com bined capacity of 300,000 brick per day being in constant operation Wichita Falls, the county seat. is one of the most progressive and rapid growing small cities of the State. Its citizens enjoy modern public utilities of every descrip. tion. It is important as a railroad center, but is more prominent bocause of its many manufacturing industries. Cheap natural gas is a constant invitation for other industrial concerns to locate there. Among the leading industries ari the following: Flour mills, cotton gins, automobile factory, glasa factory, furniture factory, sabh and door factory, three brick plants of large capacity, mattress factory, iron and culvert plant and many smaller concerns.

Farm lands are moderate in price. Quotations vary from \$15 to $\$ 75$ per acre, according to location and improvernents.

## WILBARGER COUNTTY.

Situated in the lower Panhandie, bordering the Red River on the north; created in 1858 from Bexar County and organized in 1881; named for Matthias Wilbarger; area 928 square miles; population 12,000 in 1910 and 5,759 in 1900 Vernon, the county seat and chiel city, had a population of 8,195 is 1910 and 1,993 in 1900. Odell, Harrold, Oklaunion and Colbert are other towns. It is served by the Fort Worth and Denver City, St Louis and San Francisco, Kansas City, Mexico and Orient Rallroads.

The surface is slightly rolling. with wide, level stretches. There is practically no timber. Pine River, Beaver and Wanderer: Creeks Iurnish excellent drainage. Underground water is found at a depth varying from 40 to 150 feet. Dark loam soil predominates, but there is some black waxy and some sandy land. All are very fertile and easily cultivated.

Wilbarger County for many years was an ideal cattle country. The fine grasses and abundanco of pure water easily obtained made the prairies of the county feeding grounds for hundreds of thousands of head. The great National cattle trail leading from Central Texas to Dodd City, Kan., passed through the county at the present site of Vernon and crossed the Red River at Doans. In 1885 there were driven through Vernon

300,000 head of cattle, 200,000 head of sheep and 190,000 head of horses.
As early as 1876 farmers began to appear in the county. Since that time the great pastures have been rapidly turned into fields of cotton, grain and allalfa. The loams are particularly adapted to the growth of wheat, and a large acreage is annually devoted to this grain. Cotton has become one of the chief money crops. Kaffir corn and milo maize are grown in large acreage. The soll is also excellent for potatoes, vegetables, melons and fruits. Apples, peaches, plums and apricots are grown in sufficient quantity for home consumption. The rainfall approximates 30 inches per annum.
An increase of 100 per cent in the population during the last decade has brought about greater values and has stimulated the demand for farm lands. However, a large acreage is available for new settlers. Improved lands are quoted from $\$ 40$ to $\$ 100$ per acre, the highest priced land being conveniently located to the markets of the county and generally improved with farm buildings. Unimproved zands are variously quoted from $\$ 20$ to $\$ 50$ per acre. There are many surface indications of oll and gas in the county, but paying fields have not been developed.

## WILLACY COUNTY.

Situated on the Gulf Coast, one county removed from the Rio Grande; created in 1910 from Cameron and Hidalgo Counties and organized the following year Sarito is the county seat. Miffin, Turcotte, Katherine and Rudolph are other towns. The population can not be given. as the county was organized after the 1910 census. It is served by the St. Louis, Browinsville and Mexico Railroad

The surface is level and the soil a sandy loam. Most of the area is given over to large pastures which support many thousands of cattle. In some sections artesian water is secured and small tracts are irrigated. There are also a number of small farms, while it is becoming the practice of ranchers to grow a large acreage of feedsturfs, which is possible with a rainfall of 25 inches. Under irrigation many kinds of fruits and vegetables, as well as field crops. produce heavy yields. With further development of the water resources will come a greater demand for lands at increased prices. Large and small tracts are now on the market at moderate prices.

## WILLIAMSON COUNTY.

Situated in South Central Texas; created in 1848 from Milam County and organized the same year;
named for R. M. Williamson; area 1,169 square miles; population 42,228 in 1910, as against 38,072 in 1900. Georgetown, the county seat, had a population of 3,076 in 1910 and 2,790 in 1900 . Taylor, the chief city, had a population of 5,314 in 1910 and 4.211 in 1900. Hutto, Round Rock, Bartlett, Granger, Florence, Liberty Hill and Leander are other important towns. It is served by the Missouri, Kansas and Texas, International and Great Northern, Texas Central and Bartlett and Western Railroads.
The surface is about equally divided between rolling prairie and hilly land. It is well supplied with timber, oak, elm, wainut and hackberry being the chief varieties. It is drained by the San Gabriel River, Bushy and Berry Creeks. Artesian water exists at a depth of 1,000 feet. A small area is irrigated by water from the San Gabriel River. The average rainfall approximates 36 to 38 inches per annum.
The soils vary from a black waxy to a sandy loam, all very fertile. Practically the entire area is either in cultivation or small pastures and timber tracts. Farmers are progressive and raise the best grades of cattle, horses, hogs and sheep. Cotton is the leading crop, the county ranking second in the United States in the production of this staple. Corn, oats, other grains and forage crops, peaches, truck, melons and various fruits are among farm and orchard products which attention is given. Ail farmers raise poultry and in the vicinity of good markets many have made a specialty of the industry. Dairying is a pronounced success, the local demands for butter and milk being supplied and large quantities shipped to other sections of the State.

Taylor, the chief city, is one of the important interior cotton markets of the country. Georgetown is an educational center, the site of the Southwestern University.

Williamson County, though known as one of the best developed sections of Texas, can accommodate many new settlers. Improved farms are quoted from $\mathbf{\$ 5 0}$ to $\$ 125$ per acre. Other lands are quoted at $\$ 10$ to $\$ 30$ per acre.

## WILSON COUNTY.

Situated in Southwest Teras. created in 1860 from Bexar and Karnes Counties; organicud in 1870; named for James T. Wilson; area 784 square miles; population 17,066 in 1910 and 13,961 in 1900. Floresville, the county seat and chief city, had a population of 1,398 in 1910 and 895 in 1900. Stockd.ile. Lavernia, Sutherland Springs and Calavares are other important towns. It is served by the Gal-

TEXAS COUNTIES.

## on, Hanisburg and

 isas Pass Railroads. te surface is generally rolling. e and post oak. The Civolo San Antonio Rivers the northwest to southeast. Electo Creek also ses the northeastern part aryfrom 800 to 1,000 feet. Good ying from 60 to 100 feet. Theinall averages 28 per
inches
ind um. This is sufficient for the
wing of all staple crops in orary years.
he soils vary from fine Norsand to clay and sandy loam. arly the entire coun. Cotton is leading crop. Corn, hay, onions melons are grown in large ntities. Peach thrive. Apieulture is a
plums
4,000 ding industry. There are 4,000 arms of bees, which produce anally honey and wax products lued between $\$ 30,000$ and conies to be important, but diveried farming has made great ars. Many of the farmers are erested in the production of oded and graded cattle. A numoducts for consumption in the y of San Antonio. Traces of oil and gas have been
und near Sutherland Springs. ere are several mineral springs hich have become famed for edicinal qualities of the waters e roads are naturaly good, prenets are paying special attention their improvement. There are many opportunities r homeseekers. A large acreage acts. Improved lands are quoted $t \$ 20$ to $\$ 50$ per acre
com $\$ 10$ to $\$ 20$ per

WINKLER COUNTY. Situated in West Southwest exas, the northwost created from fom Green County in 1887 and oranized in 1910; named for Judge M. Winkler; area in square hiles; populat in 1900 . Kermit, the ounty seat, is an unincorporated dailroad crosses the extreme outheastern corner. The surface is level with the exception of a chain of low sandhills on the of mesquite and catclaw growth of the plains. It is drained
is found on through Monument draw, Which dry dround water is found at 80 to 15
feet. The rainfall is light, aver aging about 13 inches per annum,
The soils are mostly deep sandy loam. Diversified farming, with in a limited way. The live stock industry is the chief occupation of the people. Lands are quoted at
$\$ 2$ to $\$ 10$ per acre.

WISE COUNTY.
Situated in North Texas; creand organized in 1858; named for Henry A. Wiles; population 26,450 in 1910 . miles; population seat and chief city, had a populat Chico, Alvord, 1910. Bridgepor, Greenwood, Paradise, Shome, other important towns. It is served by the Fort Worth and Denver City and the Chicas.
The general elevation is about 1,859 feet. The surface is for the most part undulareas of broken, are considerable Two-thirds of the area is occupied with wood Tim known as the Upper Cross Tim ties of timber. Along the streams is found a large growth or and walnut, pecan, cottonwood and elm. There is an abundance of pure water at depths 50 to 150 feet. The rainfall averages 29.47 inches
The prairie soils in the eastern third prairie sounty are given over to stock farming and grain growing, the soil being for the most part a black waxy, which is veryfertile and drouth-resisting. Considerable wheat In the west part sandy soils predominate and diversice. A dark ing is generally practiced. A dark alluvial soil is found both in the western portion and in the creek wottoms, are adapted to growing fine peaches, pears, grapes, ape-
ples, plums, apricots and vegeples, plums, Large quantities of fruits are shipped to market each season.
Alfalfa is one of the leading hay Alfalfa is one of the The dairy inand forage crops. is receiving much attention among farmers. Dairy products are shipped estimated that farmDallas. in the trade territory of Decatur receive from $\$ 18,000$ to $\$ 20$, 000 per annum in made to build up the poultry industry and some ous farms. Coal is mined at Bridgeport There are also sire brick clay is found copper. Bridgeport and in the vicinity of Decatur. Huilding purposes
sandstone for

TEXAS COUNTIES
exists in considerable quantities. A number of industries, ill, broom ing ctories, a boking powder, are opand a water valve factory, are tile factory erated at Decatur. Bridgeport is located at Rhome.
Wise County eitizens are paying Wise to public highways and have surfaced about shell rock at a cost of $\$ 500$ per shele. Several of the commering organizations are encourag of good road work and constructed by miles have private subsciption.
private subscript of land are being ffered on the market in amounts to suit purchasers. Many settlers are coming in and assisting intural arevelopment of the agricultarm resources. Price wide range, it delands have a location and amount of improvements. Quotations range from $\$ 25$ to $\$ 75$ per acre; $\$ 10$ to ${ }_{\$ 35}$ prover acre.

WQOD COUNTY.
Situated in Northeast Texas: created in 1850 from van year and organized the same. Wood;
named for Gov. George T. named for Gquare miles; population 23,417 in 1910 and 21,048 at, is an Quitman, the county Winnsboro, population 1,741 , and Mineola, population 1,706 , are the chief
popoulation popoulatiolden, Alba and How. It is are other important and Pacific, served by Kansas and Texas, Texas Missouri, Mine, Marshall and East Texas and Internads.
Northern Railroads. With some rough land along the water coursesthern boundary lines, forms the soe tributary called Lake Fork running through the werosses portion: big portion. The soll is the eastern portally yellow loam
varied, but generall though there is some warly adaptred sandy land and truck growing. ed to orchard varieties and large Numerous of hardwoods, yelles quane and other timber are This timber is in all sections making of lumber utilized in the making of oood inand by various splendid supply of
dustries. A spater is found an underground water is found. There average depth of large springs. The are also maproximates 45 to 50 inches per annum. interests, inThe agricultural breeding and feeding, are very importande for ditions are most a large number
ditions
raising
are placed on the market annually. large quantities and shipped to various markets of the cown for Many fine grapes. All kinds of berries do well.ef staple crops, a and corn are is devoted to growlarge acres, ribb ing grains, rib
A start has been made in the construction of good roads. Road district No. 1 , in the $\$ 30,000$ in bonds for the construction and clay are highways, Sand and ciantities for found in sufficien, and it is estiroad construction, splendid highways can be constructed at an mile.
cost of $\$ 500$ per mits of There are strata varying from lignite, the selve feet. Several lig-
five to twel nite mines as fact that there ha
tion.
tion. Despite the fact that there has been a sharp increase during the lation of Wood County acreage of last few years, a large ande for new good land is arices of land vary from $\$ 12$ to $\$ 25$ per acre, excep arm a such lands as carry werchantable sucavy
himber.

YOAKUM COUNTY.
Situated in West Texas on the New Mexico bexar County and or1876 from bexp; named for Henganized in 190 ; area 840 square
derson Yoakum
miles; population 602 in 1910 as miles; population 602 in plains, the against 26 in 1900 , incorporated county seat, is an no railroads
the surface is slightly undulating, free from hills and mountains. With the exception of a scattered and small grow. It is mesquite, there is no timber. draw and other sry water courses. The underground supply of 125 to 200 found at a depth of rainfall apfeet. The average per annum. The dominating soil is a deep mel low loam. Farming is a second ary occupation, the raising the atten of stock occupying the atten 80 per
the people. While fully 80 . the people. ceptible to cultivation cent dry farming methods, very little attention has indian corn, agricultural lines. cotton and vamaize, fage plants have been sucrious fully grown in a limited way. A few small orcharious ranches, yards are fort has been made to but no the fruit industry in the develop the being shown in the

apricots, but the production is iffic
on.

## YOUNG COUNTY.

 Situated northwest of Fort orth, two counties removed fromed River; created in 1856 from
ed annin and Bosque counties, anized the same year and rean anized the same year and ror Wilam Cook Young; area 821 square alles: population 13,657 in 1910 , as
ompared with 6,540 in 1900 Gra-
ame the county seat and chief amp, the county seat and chlef ity, had a population of 1,569 in
910 and 878 in 1900 Olney, Orth,
and ean, Loving, Newcastle and $t$ is served by the Chicago, Rock
sland and Guif, Wichita Falls and sland and Gulf, W
The surface is generally rolling, he higher elevations being known Twin and Gold Mountains at fraham, Belknap Mountains two
niles west of Graham and Packet niles west of Granam and dountain still further west, while 0 the southeast of Graham lie the Cement Mountains. About onealf of the area is fairly good ost oak timber land, with prai-
les here and there, the streams
ies eing fringed with a good growth of cottonwood, pecan, elm and 3razos River passes through from he northwest to the southeast for being very tortuous and its fall quite small. The Clear Fork of the Brazos enters at the southwest Fork a few miles from Graham. These streams, with Boggy, Film, Fish, California, Spring. Salt, Conder, Flint and Rock Creeks, fur vide water for the irrigation of some 3,000 acres. Abundant water good quality is found every The soll is rich and varied. The bottoms are a deep, heavy alluvial
in some places dark, in others, es in some place: light sandy. The soll of the uplands also varies, the lighter col in the timbered section and darker and closer limestone
on the prairies. Both soll and climate are adapted to diversfified farming. Vegetables of all kinds peaches, apricots, pears and grapes raising on ranches is a prominent industry, but many large pastures are giving way to the farmer.
The thickest vein of good coa in the state is found on Fish ham. Its quality is about the same as that mined at Thurbrir.
The field is extensive. Deposits
of salt are found. A salt spring at salt hauled many miles to market, There are also several gas wells. The many natural resources have been atractive to more than douthe popuring the last decade. A large acreage of good

## EAPATA COUNTY

Situated in Southwest Texas on the Rio Grande River; created in 1858 from Starr and Webb Counnamed for Col Antonio Zapata; area 1,269 square miles; popula$\begin{array}{ll}\text { area } & 1,269 \\ \text { tion } & \text { square } 1910 \text {. Zapata, th }\end{array}$ county seat, is an unincorporated town, San Ygnaclo, the chief town,
has an estimated population of 700 , has an estimated populs.
The surface is rolling and is covered with a growth of mesquite and cactus; some ebony and Brazil-
wood is found in a few sections. wood is found in a few sections. grow to a fair size and furnish excellent timber for posts and other purposes. The soil varies
from a rich, black sandy loam on from a rich, black sandy late clay in the bottoms and lowlands. With the exception of the southeastern
portion, water for domestic use is portion, Wherce. Thalnfall will approximate 16 to 18 inches per annum. Live stock raising is the chief industry of the people. $A$ few fully in average years. Farming, however, has never recelved mules and goats thrive on the native grasses and of recent years some attention has been given to the raising of hogs. It has valuable deposits of lime and sandstone, but no quarries have been developed. Traces of oll are found in the southern portion
coreage is under irrigation along acreage is Niver, with several the Nand acres irrigated water, which sections from artestan wand at de
is found. In abundance
is founging from 500 to 800 feet.
The soil varies from black sarrow to black loam, with some gravel. The strips of sand and graves 22 to 24 rainfall per annum. three or four inches During the last three or has years interest in th. With an made rapld grater and favorable abundance conditions, it has been
climatic demonstrated that and other secas Dimmit chis part of Texas, for merly noted as a catrle truck is adapted to onion and Immigrowing an this section is rapiagchanging great pastures into orchards. nificent truck Under irrigation, restory in most inmore than satons thus far have with stances chief money crop, but it is the development will eventually thoughtirst place.
take first place. honey industry is successfully conducted, it more than timated that theres owned by va2,000 stands rious individuals.
Although many new settlers have entered this sect1on of the market. large acreage land varies according to improvementartesian wells ready equipped wing plants, with the or river pumaterals, are quoted as high as $\$ 300$ per acre. lands subject $\$ 60$ per acre. Other had at $\$ 20$ to $\$ 60$ at lower prices.

RAILROAD MILEAGE SNTTED STATES.
Figures and Poor's Manual show Figures and pailroad mileage in Situated in Southwest Texas; cre-
ated in 1858 from Uvalde and Maverick Counties and organized in 1884: named for Lorenzo D. Zavalla; area 1,328 square miles, population
1,889 in 1910 and 792 in 1900 . Bates ville, the county seat, is an unincorporated town. Crystal City is the leading town. It is served by
the Crystal City and Uvalde Railroad, now known as the San Antonio, Uvalde and Gulf Railroad. The surface in general is rolling, with considerable level land. Mes-
quite and live oak grow in the river quite and live oak grow growth of mesquite scattered over the uplands. It is drained by the These streams, with tributaries, are proving valuable as sources of water
for irrigation purposes. A. large

## GOURISHITMT IN AN TGG.

Nourding to tests made recently by the Department of Agricul eggs seven-elghths of the white of eggs is shown to be water, the remen,
ing eighth belng chickens, geese, The eggs of chickens, geese, ducks and the tests, which showed he entire eggs to be ma follows:
Hen eggs, 50 per cent water, 16 Hen eggs, 50 per cent water, 16 Goose eggs, 44 per cent water, 19 per cent protein, 36 per cent fat. 17 Der cent protein, 36 per cent fat. per Turkey eggs, 48 per cent water, 18 per cent protein, 33 per cent fat, 18 per cent proter goes to make blood and muscle and it is easily seen fuel for heat, sough largely comthat eggs, Water, contain the elements needed to busues.
and repair the tissues. It is not has much nourishment egg a pound of steak. As a genera as a three-fourths of a pound same eggs contains about the pound amount of nourishmark News.

ARROWROCK DAM.
The Arrowrock dam, being built The Arrow States Reclamation Service for irrigation located twenty miles from poses, is located be 350 feet high,
Boise, and will one of the highest to seventy feet world. From sixty to ses the granbelow the river bed hich the foundation of this huge wall of rected. farced concrete is to be erected The width of the 200 feet and the river bed is a the dam at
thickness of the be about 240 feet.
Will be abited states.
BRITATNS IN UNITED Suntrymen How many of our are nearly realize thatish-born inhabitants of the United States? from recent to a carerule United States Cenreturns of the United midale of the sus Bureau, at
present year, the British-born poppresent year,
ulation was $3,889,169$, made up as follows:
England 892,908 , Scotland 268 ,
, England 892,908 , Ireland 1,378,428, Canada and New foundland 1,221, Canada . West Indies 17,710 , Australl 8,638 , India 2,987 , pendencies 13,60 . pritish-born poplation of New York City is 401,409 , made up New follows: 79,662 , Scotland 31,200, England $7,5,0$, Wales 1,734 , canada 27,336 , other British depended
adies 3,927. The British Gazette. ada

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## Growih of Atractive Cities.

The value of this beauty is likewise well understood by many cities and sections of our own country. Witness the wonderful growth and splendid development of such beautiful. carefully planned cities as Portland, Ore: Los Angeles. Denver, Detroit, Kansas City, Cleveland and Buffalo. Their beauty is recognized as one of the chief of their resources. A recent article has pointed out also that the progressive spirit and attractiveness of the Western cities is harming the Eouth by drawing from it a good percentage of its strongest young men, which, it is shown, is a distinct menace and a serious eccnomic loss to the Southern States. To overcome this we must make our home State attractive in all particulars.

It was my pleasure recently to visit seventy-nine towns in Texas and Oxlahoma with the Dallas trade exccrsion, and it was interesting to note how a particularly beautiful picture of country or clean. attractive town brought forth exclamations of deljght from
nearly every man in the party. And it was cqually noticeable that those towns which were most attractive ususally possessed the most progressive citizenship and the most material prosperity. Indeed. wherever you go you will find few exceptions to this rule. that the pretty, well-kept town is also a posperous town.

The development of this attractiveness in town or country arouses and develops in the neople an interest in matters other than the daily hard struggle. It brings the people closer together: it arouses interest in a movement which, once thoroughly started. will surely grow by leaps and bounds. It derelops cemmunity interest and community efficiency. It produces results that can only come from co-operation. Arousing interest in these matters likewise develops patriotism, pride in town or country. The town and the adjoining country will become more attractive. one to the other and result in more sociability and enjoyment.

The growth of a town along carefully planned and attractive lines does not necessarily mean a larger expenditure of money : but it does mean a prevention of errors and of waste and insures more satisfactory results for what is expended. It means simply the use of taste and thourht and vision, of looking ahead, of providing for the future. It evidences clearly and unmistakably that the inhabitants belleve in their town as they show it by their civic acts.

## Problems for Small City or Town.

Relatively, the small city has all the problems of the larger one and the town has in a lesser degree the froblems of the small city. If it be an incorporated town there should be a town hall, and the fact that it is the official head. quarters should be emphasized by an example of attractiveness wor thy of emulation. It should be arranged with a view to its use not only as offices for the town, but should also be arranged for town meetings, concerts and generally for the development of the social center idea. Attractively and conveniently arranged, it can be made to serve many useful purposes in an educational and entertaining way. Feople crave amusement. and it behooves us to provide the wholesome and uplifting kind.

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To know music one must be able to interpret it. A music pupil properly taught by standard methods should be able to supply the marks of expression in a piece were they omitted entirely, just as a reader can supply the punctua. tion marks to a plece of ifterature in which they are omitted. In both cases one must know the sense of the piece being rendered. How many music pupils --even after long periods of study under the ald methods can do this?

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# ATTRACTIVENESS IN 

## TOWN AND COUNTRY

## PAPER READ REFORE THA FARMERS' CONGRESS

The following paper, entitled 'The Value of Attractiveness in Town and Country," was read before the 1911 session of the Texas Farmers' Congress at College Station and was printed in The Gal-veston-Dallas News of July 30 , 1911:

Many years ago I spent a summer in a village near a well-known lake in a far away State. One day our party took a boat trip across the lake to a neighboring village. but was prevented from returning by water because of a sudden storm. We were anxious to get back the same night principally because there was no way of communicating with our host to explain our predicament, and we feared that our absence might cause alarm. We were in a primitive place; there was no livery stable, and our only chance was to persuade seme farmer to take us to our abiding place by the wagon road, which was over a roundabout route of some fifteen miles, while the distance across the now stormy lake was but four or five.

It was suggested that a certain industrious farmer, a widower, might accommodate us. We found him and he agreed to do so, but insisted that we must first take supper with him. It was growing late, we were impatient to start: but our grod widower friend could not be hurried, nor could he be induced to start until he had shaved his beard and dressed up in the best clothes he could muster. It transpired that although not far away our host had not visited our village stopping place for some years, and that his eagerness to decorate himself was because of his admiration for a certain widow in that community.

## Value of Appearances.

I mention this story to illustrate the value of appearance. He wanted to make a favorable impression on the widow, and rightly knew that to do so he must make himself as pleasing as possible to the eye.

Go back as far as history will permit and you will learn that this has alwass been so. It is a fundamental human trait. Even the savage races knew the winning power of beauty, and they used it by deccrating themselves with paint, beads and feathers. to please the beholder and make him compliant to their desires.

This same truth is exemplified by the modern successful storekeeper, who attracts his customer
by arranging his wares in ways that delight the eve. There are notable instances all over this country where far-sighted men have spent vast sums of money in constructing buildings with this jdea of attractiveness in view, knowing how raluable an asset it is. It used to be that utility was the only end sought in building. As societies grow in refinement and civilization they come more and more to demand gratification of their love of beauts. Every man who wears a necktie thereby admits the strength of this universal law of attractiveness. And this same law governing individuals applies also to country, town and city. What is true of the individual is true of all societies, from the most barbarous to the most effete.

## Significance of Appearancen.

Appearance, though, is not merely a matter of the senses. It has a significance that influencus us in boin the little and big acts of life. Have you ever noted your reflections as they are inspired by the panorama to be seen from a railroad train? You pass through a piece of beautiful country and behold the so-called home of a farmer absolutely devoid of at-tractiveness-frequently without a tree, unpainted, the fences illkept, an air of desolation about the whole place. What impression is instantly made on your mind Invariably you think that he is a slovenly man, a man without ambition, thriftless; on perhaps who restlessly hopes before long to move on some place else. And the likelihood is he has been moving on all his life. The picture sug. gests a discontented man, one who is deficient in the qualities that make success.

Contrast this with a farm home which approaches the ideal-one drawn from the plans of an artistic architect or landscape engineer, having a proper setting of trees and shrubbery, painted fences, tastefully and conveniently arranged outhouses, with the well-fed and well-cared-for horses and cattle in evidence, the luscious orchard and all the real comforts which in this day and time the intelligent, progressive farmer may so easily obtain. Immediately you say to yourself, there is a man who has the ambition and energy to succeed. rowns and cities exercise the same influence -we are either repelled and disgusted or aitracted and pleased, dependilin ajun whether the towns are ugly: dirty and ragged, or
pretty, clean and properly built and carou for.

## 'lhe Economic Benefit.

Take a ce:tain stretch of country. Develop the farming sections into aitractive well-arranged farms ind pleasing improvements and conveniences. Then build in that same section a number of well-planmed. clean towns, occupied by thrifty people. and there will be no need to spend money to attract nencomers for rurther devolopment. That country is its own advertisement-its own immirration agent.

This attractiveness of town and country (the term speaks for itself) will most surely bring to that section new settlers, more trade, tore visitors, will raise the value of land and establish a better class of inhabitants. Morality itself, individual and social, is promoted by beauty of environment. God has given us a charming world in which to live. In its natural state it is beautiful. And it is our duty not to try to improve on nature. for that we can not do, but to work in harmony with it-not to despoil it with filth and manufactured ugliness, but rather to do everything we do in a spirit of appreciative conformity to the divine cre. ation.

That beauty pays is further proved by the departure each vear of the tens of thousands of our people, carrying with them millions of our good dollars to the various beautiful and attractive cities of Europe, whose people well understand this sure way of raising immerse and never failing crops of reld.

## Growil of Atractive Cities.

The value of this beauty is likewise weil understood by many cities and sections of our own country. Witness the wonderful growth and splendid development of such beautiful. carefully planned cities as Portland, Ore.; Los Angeles. Denver, Detroit, Kansas City, Cleveland and Buffalo. Their beauty is recognized as one of the chief of their resources. A recent article has pointed out also that the progressive spirit and attractiveness of the Western cities is liarming the Eouth by drawing from it a good percentage of its strongest young men, which, it is shown, is a distinct menace and a serious economic loss to the Southern States. To overcome this we must make our home state attractive in all particulars.

It was my pleasure recently to visit seventy-nine towns in Texas and Oxlahoma with the Dallas trade excursion, and it was interesting to note how a particularly beautiful picture of country or clean. fitractive town brought forth exclamations of delight from
nearly every man in the party. And it was equally noticeable that those towns which were most attractive ususally possessed the most progressive citizenship and the most material prosperity. Indeed. wherever rou go you will find few exceptions to this rulethat the pretty, well-kept town is also a presperous town.

The development of this attrac. tiveness in town or country arouses and devojops in the people an interest in matters other than the daily hard strugele. It brings the people closer toretiner; it arouses interest in a movement which, once thoroughly started, will surely grow by leaps and bounds. It develops community interest and community efficiency. It produces results that can only come from co-operation. Arousing interest in these matters likewise develops patriotism. pride in town or country. The town and the adjoining country will become more attractive one to the other, and result in more sociability and enjorment.

The grcuth of a town along carefully planned and attractive lines does not necessarily mean a larger expenditure of money: but it does mean a prevention of errors and of waste and insures more satisfactory results for what is expended. It means simply the use of taste and thought and vision, of looking ahead, of providing for the future. It evidences ciearly and unmistakably that the inhabitants believe in their town as they show it by their civic acts.

## Problems for Small City or Town.

Reiatively, the small city has all the problems of the larger one. and the town has in a lesser degree the problems of the small city. If it be an incorporated town there should be a town hall, and the fact that it is the official headquarters should be emphasized bv an example of attractiveness worthy of emulation. It should be arranged with a vlew to its use not only as offices for the town, but should also be arranged for town meetings, concerts and generally for the development of the social center idea. Attractively and conveniently arranged, it can be made to serve many useful purposes in an educational and entertaining way. People crave amusement. and it behooves us to provide the wholesome and uplifting kind.

## The Court House.

At the county seat the court house should recelve speclal attention. Its surroundings should not constitute a wagon fard. Attractiveness should be the watchword here. Planned by a first-class architect, with a sufficient amount of money to spend. and a free rein. it should be and lan be made the most artistic and attractive build-
ing of the community. Here is another chance of fostering the idea of individuality in the use of local building materials, where there are such, and of the development of types of trees and shrubs especially belonging to the locality. With a pleasing exterior and interior containing ample public comfort facllities for men and women, with shower baths, with a reading and writing room for the use of the good people from the country surrounded with ample and wellkept shady grounds, this official county residence can be made a constant uplifting influence on the entire community.

The same argument might be ased with reference to the public school buildings. Here is where architectural taste, convenience and comfort should abound. The schoolhouse should be so built, so attractive, so well lighted and so conducted that the average boy or girl would delight in attendance.

## Playground Around School.

Arouad the school building there should be ample playgrounds with a competent instructor. It is just as necessary to develop the body as the mind, for without sound body we can not have sound mind. Let the development of our future men and women be well rounded, giving equal emphasis to the moral, mental and physical natures. Also, every town should have a convenient baseball or athletic field; should have proper areas devoted to shady parks and should have its local band of music.

Particular attention should first be given to the front door of the town, by which I mean the rallroad station. Most railroads are anxious to co-operate with the towns in providing attractive depots and railroad grounds, and if they are so disposed the importance thereof should be continually pointed out to them. This is the first thing the vistor sees; therefore, everything about the station should be pleasing and clean. And there should be a first-class roadway ond sidewalks as an approach to the town, and in the town itsel: the streets and sidewalks should be well made, well kept and properly lighted at night.

There is no better or more intelligent race of people of the globe than thuse of the United States. We have natural taste for and can appreciste attractive and desirable things, but in our thoughtlessness and in our mad rush for one more dollar we have frequently neglected the things we ought not to have neglected, delaying their consideration until tomorrow, and tomorrow, unfortunately, never comes.

## Suggestions Are Not Impracticatile.

Nothing I have outlined in these acattering remarks is impracti-
cable. The. people of any town or district in Texas can do all the things pointed out, and many towns and communities are doing them. "The schoolmaster is abroad;" the people are waking up. The newspapers of Texas are devoting thousands of dollars' worth of space every year to this movement, which is everywhere manifest. The tremendous importance and value of planning our lives, our towns, our communities, our country districts, of developing the best along all lines, is taking a firm hold on the people. We are realizing that we have been indifferent, careless and wasteful; unthoughtful and unintelligently selfish. Now we are beginning to realize the desirability of intelligent selfishness. We are now learning that it is our duty and also to our advantage to think of our fellows; to co-operate for the good of the whole community, and that it is just as much our duty to plant trees that shall comfort coming gererations as it is to enjoy the shade of those our fathers planted.

The people attending this Farmers' Congress are from all over Texas. You are here to learn what is best for yourselves and for your communities. I want to urge upon you in conclusion that there is nothing that you can do that will bring better results, not only in improved living conditions, contentment and enjoyment, but also in the accuisition of wealth and influence, than in producing attractiveness of all kinds in town and country. And these ideal conditions are coming upon us infinitely faster than we realize. The fact of their importance is taking a hold on the people. The improvement fever has taken hold of the Texas Commercial Secretaries Association, the Texas Real Estate Exchange and the Texas Mayors' Association and many Texas towns are working along the lines here suggested.

Those communities that fail to realize these conditions will suffer, and those that got in the progressive prozession will prosper. With the impetvs to this great movement that is now manifest in Texas and the large amount of publicity that is being given the subject by the Texas press, I am confident that in five years from now the improved conditions that will be shown all over Texas will be beyond our most sanguine dreams, and that the great State of Texas, which already has so much to boast off in the way of natural advantage, will be able to claim all matters pertaining to the comfort and health of its people. and in the bringing about of ali those cunditions which make for pleasant life and human happinesa

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