TEXAS

ALONG

THE

FRISCO

FRISCO


FRISCO
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ARIZONA
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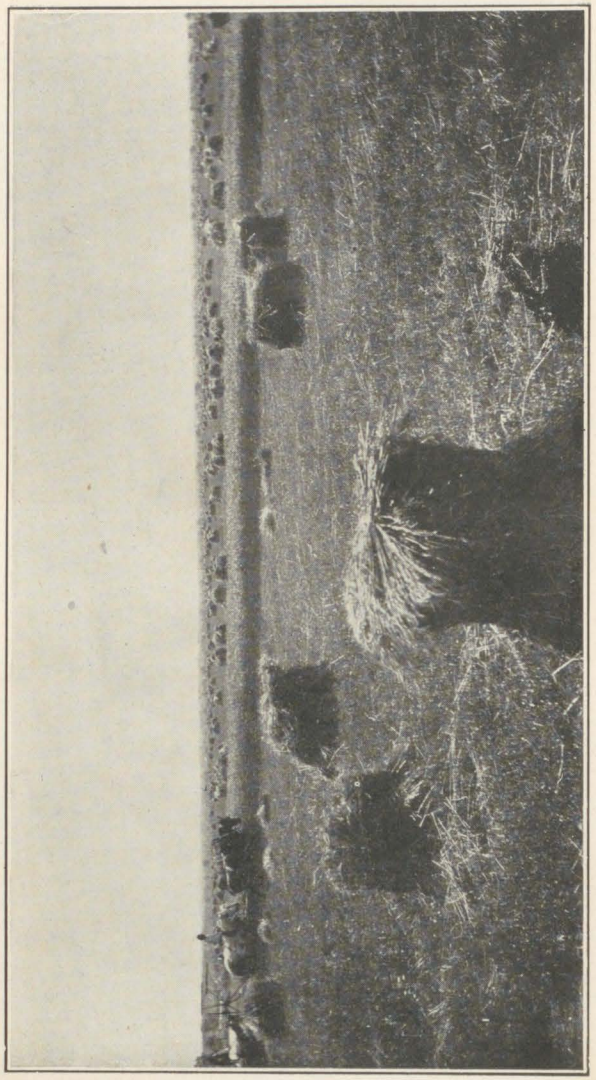

TEXAS WHEAT.

TEXAS

ALONG THE

FRISCO

PRESS OF
LAMBERT-DEACON-HULL PRINTING CO.,
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CONTENTS

TEXAS

THE discoverer of a country, in the truest meaning of the word, is not he who first sets foot on it, but he who first determines its capabilities. It is a corollary that a country, or a section of a country, is not in reality discovered until the potentialities of its soil are learned and proven.

In this acceptation, the Brownwood country, which may be described as a segment of Texas wedged in between the Panhandle on the north and South Texas on the east, is only now in process of discovery. It has been settled for many years—Brown and Erath Counties, for instance, were created in 1856; but only now is its wealth-producing capacity becoming known, and it will, doubtless, be many years yet before its possibilities are fully tested.

It is a pretty country to the eye; in this respect it is on a par with all FRISCO scenery. Beginning at Fort Worth and going southwestward, it is almost a level prairie for twenty miles, with scarcely a tree to obstruct the vision. When one gets well into Hood County, the prairies become undulating, with here and there an edging of trees. In Erath County the surface is a succession of hills and valleys, the hills not very high, but sufficiently so to mark the boundaries of the valleys sharply. There is more timber, too, and one notices streams more frequently.

Comanche County is only an emphasized reiteration of Erath County, and when one gets into Brown County, 120 miles or more from Fort Worth, the hills become imposing and the valleys have a broader sweep. Finally, when one reaches McCulloch County, the hills become almost mountains and the valleys almost canyons.

Roughly this is the geography and the topography of the Brownwood country. Its climate is as nearly ideal as any that can be found in the State. Knowing neither the rigors of the northwest part of the State, not the enervating summers of the bayou country, and with an altitude of from 1,000 to 1,500 feet, it has a climate peculiarly invigorating.

Its history is of little interest. It is now beginning the third period of its evolution. At first it was a pasture; immense herds of cattle grazed over its hills and valleys with never a fence to restrict their meanderings. The man with the hoe came twenty years after. Being in most instances a Southern farmer, he planted cotton, of course, and being a cotton grower, he pre-empted the black soil of the valleys, leaving the cattle in unmolested possession of the uplands. As cotton grew well he was content to produce only that crop, with sometimes enough corn and oats for his own needs. Usually he raised a few cattle, but hogs he regarded as beneath the dignity of a cotton grower.

One-crop farming is precarious in any country; too much is staked on the seasons, and the one-crop farmer of the Brownwood country, like the one-crop farmer of every other country, often found himself in distress. As it took two good-crop years to pay off the debts

made necessary by one bad-crop year, there was no enduring prosperity in the Brownwood country in the second period of its evolution. Hard times were attributed to the climate and the soil, and the development of the country was arrested.

This condition, the inexorable consequence of the one-crop folly, has so retared the development of the country, that to-day, fifty years after its settlement, not more than one-third of its tillable area is in cultivation, although a more productive soil is rarely found. But every evil works its own cure in the long run; the one-crop farmer was forced by his adversities to reform. Finding that corn, wheat and oats could be grown profitably, he is beginning to make them commercial crops. Another circumstance which is making diversified farming the feature of the third period of its evolution is that the black land having been to a large extent pre-empted by the early settlers, those who came after them were forced to the uplands where the soil is of a sandy loam. This land grows cotton, too, but Nature did not compound it for this purpose. It has taken the farmers almost a generation to make this discovery. They sat down about twenty years ago to study the problem, and unable to solve the riddle, they have finally asked the question of the soil itself. The answer is cotton, corn, wheat, oats, sorghum, alfalfa and fruit, and the last named command was emphasized.

This is, briefly, the genesis of the Brownwood country, and in this recital is the explanation why a country surpassed in fertility by none and offering a variety of opportunity that few can equal, is only in the beginning of its development.

To speak further of the third period of its evolution is largely a phophecy, but it is a prophecy founded upon conditions of such certain effect that one hazards nothing in predicting that in the Brownwood country, within the next five or ten years, must be the greatest development in Texas.

Texas has never grown as a whole; it has developed by sections. This is its history. First, it was South Texas, for it was in that section that Moses Austin and his patriot colonists sowed the seed of civilization in this State. The seed, taking root, spread their tendrils up and down the Black Prairie, which in the geological maps of Texas runs from north to south like an irregular S. Next the forces of development were concentrated in East Texas, following the discovery that fruits and vegetables could be grown there at immense profit. Enhancing values deflected the forces of development to the southward, and the rice industry of Southeast Texas is a result.

THE BROWNWOOD COUNTRY

THE Brownwood country must be developed next; first, because the possibilities of its soil are only now being discovered, and, second, because in that section there is more cheap land than in any section of Texas.

In the counties of Hood, Erath, Comanche, Brown and McCulloch, which properly constitute the Brownwood country, there are 2,729,040 square acres, and fewer than 1,000,000 acres are in cultivation. This land may be bought at prices on which the farmer can make a profit of 20 per cent the first year and 100 per cent annually after the third year.

Another circumstance which gives the farmer of the Brownwood country so tremendous an advantage is not merely that the greatest variety of products may be grown there, but that in at least two of them, apples and pears, he has almost a monopoly in Texas. As a fruit-growing country it is superior to East Texas, where land values have enhanced, in many instances, 1000 per cent within ten years, and where diversified farming has made those who practiced it independently wealthy. The statement that the Brownwood country is a better fruit-growing country than East Texas will be challenged by those who, knowing only East Texas, imagine it the desideratum in this respect, but it is susceptible of proof. If the test were made alone in peaches, for which East Texas has become celebrated, the Brownwood country would not shrink from the test, for the fruit farmers of that section are raising an Elberta peach which can in no way be distinguished from the Elberta peach grown in Cherokee County.

CORN IS A PROFITABLE CROP.

But it is not on its ability to grow peaches that the Brownwood country bases its distinction. In this it merely claims rivalry with East Texas. That for which it asserts pre-eminence is in the growing of pears and apples. Few sections of Texas, so far as anyone knows now, have been so favored with a combination of soil and climate as to make the growing of apples and pears profitable. If the Brownwood country has not this distinction, it shares it with but few counties in Texas; for in the Brownwood country they grow an apple that equals anything sent out of Missouri or Arkansas, and they produce a Bartlett pear that not even an expert can distinguish from the California fruit, and which has proven its quality by the severest of all tests—the market price. The Brownwood country expects to become as famed for its apples and pears as East Texas is for its peaches and strawberries, and it expects to make more money out of them, because the area in which apples and pears may be grown is less than one-tenth that in which Elberta peaches flourish.

Another fruit in the production of which the Brownwood country has every reason to believe that it will take first rank is in the cultivation of grapes. Grapes require peculiar properties of soil. It must be compounded with almost that degree of precision that one looks for only in the laboratory. In addition to this there must be such a nice adjustment of climate influences as are rare in this country. The combination of soil and climate indispensable to the growing of such grapes as command the respect of the winemaker is found only in spots in this country. There are two small areas where it is found in Texas. One of them is along the Lower Rio Grande; the other is in the Brownwood country. This is a proven fact. Grapes are now grown in all the counties of the Brownwood country that command the highest price in the markets.

A circumstance which is doing much to bring about an increased acreage in fruit-growing is the great

advantage the Brownwood country has over California in the matter of reaching the markets of the North and East. This is an advantage which must become of commanding importance as the production of fruit in the Brownwood country increases in quantity so as to make itself felt as a competitor of fruit from California. California can not hope to put its fruit even as far north and east as St. Louis in much less than a week; the Brownwood country can reach the same market within 36 hours. Fruit from the Brownwood country not only reaches the northern and eastern markets in better condition, but the growers do not suffer the same loss from decay, which does much to reduce the profits of the orchardists of the Golden Gate State. The difference in freight rates gives them also a tremendous advantage which will in time win for them command of the biggest markets of the Union.

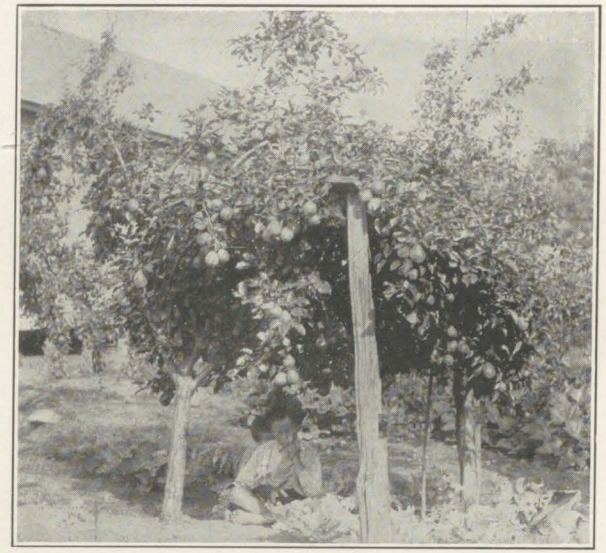
A country upon which Nature has lavished her bounties in such profusion must inevitably have a tremendous development, and even now it is quivering in its new birth. Its resources, dormant for a generation, are only now being quickened into life. Men who have slept in the midst of its advantages are being awakened, and while it will be many years before its full possibilities will be developed, its progress henceforth must be rapid, certain and constant.

Such a country is worthy a closer examination than is possible in general terms.

Hood County.

There is not much difference in the counties composing it—certainly no appreciable difference in the characteristics of the first three as one leaves Fort Worth—Hood, Erath and Comanche. Hood County is perhaps a little more level than those to the westward of it. The soil of the county is chiefly of two kinds. For several miles on each side of the Brazos River, which almost bisects the county, it is black,

heavy and deep. Here cotton, corn, wheat, oats and sorghum cane grow with a luxuriance seldom surpassed. The soil becomes more of a sandy loam as one leaves the river, until, at the extremities, it is a reddish sand. It is this sandy loam that is susceptible of the greatest diversification, and, yet, notwithstanding this fact, this land is cheaper than the black soil, for cotton is still the fetich, and the people have learned only the first lesson as to the wisdom of



PEAR TREES.

diversification. Cultivated black land costs all the way from $15 to $30 an acre, while the sandy loam may be bought at from $8 to $15 per acre, depending, of course, on the location and the extent of the improvements. This sandy land is deep and fertile. It has a clay subsoil, which, like a sponge, gathers the moisture and releases it gradually as there is need of it, so that

crops on this land are in reality more impervious to long dry periods than the black land. Still the question of superiority as between the black land and the sandy land is a perennial one in Texas, and it will perhaps never be decided definitely enough to justify one in making an emphatic assertion on either side of the controversy. It is an admitted fact, though, that if the black land is more productive of cotton, oats and such crops, the sandy land yields a larger variety of products. It is unmatchable in the growing of fruits and vegetables. Of the fruits, apples, pears, peaches, plums and apricots grow to perfection, and cantaloupes get the flavor that has made the Rocky Ford fruit the delight of the epicures. Berries also do well, especially blackberries and dewberries.

One advantage which the black land farmers claim over their upland neighbors is that their farms, lying close to the Brazos or some other stream, may be irrigated at little cost, either by pumping from the streams themselves or going below for subterranean supply which is found within a wide zone on either side of the river. But while conceding this, the upland farmers disparage the importance of it by asserting that with proper cultivation, the sandy land may be made sub-irrigating as well as self-irrigating. The two factions may be reconciled, however, with the statement that irrigation is not often necessary, or even desirable, for the annual rainfall in Hood County is over 30 inches, and it is usually well distributed.

Big ranches and dependence on cotton have served to delay the practice of those improved methods of farming that have been forced on the people in the older and more thickly settled States. The value of land has not been appreciated because it has been so abundant. This is not an original observation, but it is true of Hood County in a marked degree. There are 314,880 square acres in Hood County, and fewer than 200,000 are in farms, while perhaps not more than 100,000 are actually under the plow. The popu-

lation of the county is only about 8000, and if one deducts the 2000 who live in Granbury, there are about 52 acres for every man, woman and child in the county, on the basis of the present population, and the average size of the farms is 156 acres. To cultivate 156 acres along scientific lines is a pretty big task for one man, and to cultivate along the methods that have been in vogue in Hood County means that the farm yields just about one-fourth what it could be made to yield.

But the farmers of Hood County are censurable not alone for their methods, but because of their neglect of the opportunities which Nature has strewn around them. It is only within the last few years that they have tried to grow anything but cotton. Corn, wheat and oats were almost neglected, notwithstanding corn will yield from 30 to 50 bushels to the acre; wheat from 20 to 35, and oats from 40 to 75. As to the possibilities for fruits and vegetables, these were ignored, or, if not ignored, neglected. In 1890, 24 acres were planted in potatoes and 1056 bushels were gathered, yet only now is it beginning to dawn on the farmers that there is a profit in growing potatoes. At only 25 cents a bushel, these potatoes would have reimbursed the man who bought those 24 acres of land at the prevailing prices. In the same year just one acre was planted in onions as an experiment, and it yielded 83 bushels. Anyone who knows the value of first-class onions, may figure the percentage of profit on the $10 or $12 which this acre of land cost. These are two staple vegetables, the demand for which increases with almost mathematical exactitude, yet for ten years the farmers of Hood County have made no effort to grow potatoes or onions as a commercial crop.

These statements are even more strikingly true with respect to fruit culture. Apples, pears, peaches, plums, apricots and grapes may be grown with greater profit—the fact has been demonstrated in almost every

neighborhood in Hood County, yet there are not more than two or three commercial orchards in the county. These, notably that of Mr. Benjamin H. Wilson, who lives four miles south of Granbury, are a standing accusation against the farmers for having so long been indifferent to the opportunities of making themselves independent. But the facts are given, not so much for this purpose, as to show why a country so rich in its natural resources has remained so long undeveloped.

Yet, while this is a legitimate complaint against the farmers of Hood County, it may be said in their behalf that they are surely, if tardily, awakening to the possibilities of their soil. Slowly and cautiously diversification is becoming a fact. Orchards are being set out in all parts of the county, and within a few years fruit will be shipped out of Granbury by the carload. A striking instance of this trend is afforded by the acreage in cantaloupes. Last year a few farmers planted a small acreage as an experiment. They were shipped to market by express and commanded a price equal to that paid for the Rocky Fords, and nothwithstanding the method of marketing them was the most expensive, they netted the growers a profit greater than they had been accustomed to on cotton. This year the acreage has been multiplied by three.

Another circumstance which supports the statement that Hood County is on the verge of a splendid development is that the farmers are giving more attention to the raising of live stock. The day of the big ranch is gone in Hood County. Instead of the big herds of longhorn steers, one now sees small bunches of graded cattle on almost every farm. The nearness of Hood County to the recently established packing houses in Fort Worth has undoubtedly had much to do with this; but whatever may have been the influence, the fact is undeniable.

Granbury is the only town of any consequence in the county. It has a population of about 2000. It is about midway of the county from east to west, and is

on the Frisco System. It is a good trading point, has two national banks, a cotton gin and a flouring mill.

Other towns in the county are Thorp's Springs, Lipan, Paluxy and Center Mill.

Erath County.

Erath County, which adjoins Hood on the southwest, differs little from its neighbor in the general aspect. Its surface is virtually a continuation of that of Hood County, though perhaps a little more broken in parts. Nor is there any material difference in the soil; it, too, is of two kinds, the heavy black and the lighter sandy loam, though probably the last named variety predominates to a greater degree than it does in Hood County. Also, it is more heavily timbered, about three fourths its surface being covered with post oak, hackberry and mesquite trees. It is about as well watered as its neighbor. The Bosque River runs through the middle of the county, and there are a number of smaller streams which supply enough water for all purposes. The county is also underlaid with an artesian stratum, which a great many farmers have tapped to irrigate their orchards.

One of Erath County's distinctions is that it has the best producing coal mines in the State. They are in the northwest corner, having the town of Thurber as their center. Thousands of acres of coal land have been located, and even now the mines at Thurber, which are operated by the Texas and Pacific Coal Company, yield 1500 tons of excellent coal a day, and this industry alone supports a population of 4000 people at Thurber.

There are in the same neighborhood inexhaustible hills of shale which are now being utilized in the making of brick, both soft and vitrified, which are nowhere excelled.

But while such mineral resources would make a distinctive feature of almost any county, Erath

ERATH COUNTY FRUIT.

County's ambition does not lie in this direction. Erath County hopes to become, as it firmly believes it will, the producer of more apples and pears than any county in the State, and of a quality that will admit of no rivalry in Texas. Men who are only now beginning to see verified a prophecy of ten years ago believe that Erath County will become no less famed for its apples and pears than Smith and Cherokee Counties, in the opposite end of the State, are for their Elberta peaches and strawberries.

Their faith has abundant reason. The best proof that it is not an iridescent dream is the reality of a few big and splendid orchards within a few miles of Stephenville. The most notable of these, though it is one of the youngest in the county, is that of Mr. J. W. Jinks, just two miles from Stephenville. Mr. Jinks has 180 acres which he devotes to all purposes, even growing some cotton on the new land to show by contrast the wonderfully diverse capabilities of the soil; but that on which he devotes most of his attention is his orchard, which is of about 30 acres. Of these 30 acres, 15 are in apple trees, while he has about an equal acreage in pears. The rest of it is in peaches, Japanese plums and persimmons, pecans, blackberries and dewberries. In addition to these, he raises all the corn, oats and fodder for his own needs, and still has a considerable tract of land uncultivated.

Mr. Jinks' farm is interesting for several reasons, but chiefly because it is an impressive demonstration of what may be done with Erath County land when subjected to scientific farming. His soil differs in no essential particular from most of that in the county; certainly it is not different from that immediately around him on every side.

His trees are of all ages; some of them are seven years old, and they decrease in age to those which were set out only last year; for Mr. Jinks, though one of the prophets of the wisdom of fruit growing, has

been conservative; every step has been taken from the foothold of experimental results.

Mr. Jinks first proved that pears could be grown, in doing which he refuted thousands of wise men, who were sure that "pears fit to eat" could not be grown 50 miles from the coast. He found that while some varieties could not be made to grow successfully there, what are known as the Oriental species and the Bartlett could be made to flourish. He did this by growing pears that averaged 16 ounces in weight and many of which weighed 18½ ounces. He matured them to such perfection—a feat thought to be impossible in Texas—that they were as mellow as any shipped from California. After proving that as much deliciousness could be concentrated in a Texas pear as was ever found in any that came out of California, he further confounded the cotton-growers by proving that they could be made profitable as a commercial crop. This was made not difficult by reason of the fact that pears—and, indeed, all kinds of fruit grown in that country—are made inordinately firm by the climate and soil, making them in this way much better for shipping purposes than the California pear. He put them on the market in competition with the California pear and they commanded an equal price. Mr. Jinks has pear trees which netted him last year $10 a tree, while few of them yielded less than $5 a tree.

Mr. Jinks has done virtually the same thing with apples. He has been selling apples for three years, each year shipping out more than during the preceding season, and this season he will ship them out by the carload, for several hundred of his trees will come into bearing this season for the first time. The varieties mostly raised are the winesap, Ben Davis, mammoth and black twig. Mr. Jinks, who has given ten years' study to the matter, asserts that apples in every respect equal to those of Arkansas can be grown in Erath County, and no less profitably.

Mr. Jinks also grows Japanese plums and persimmons and will this season ship them by the carload, while adjoining his fruit orchard he has several hundred pecan trees which will be in full bearing within

BARTLETT PEARS FLOURISH.

two years, and will yield him a revenue of not less than $4 per tree.

What Mr. Jinks has done and is doing, others are doing, though his is the distinction of having first

proved it. Within only a few miles of Mr. Jinks' place are several other commercial orchards, notably those of Mr. J. R. Ellis and Mr. H. Hathway, both of whom are growing apples, pears and peaches profitably; while 8 miles from Stephenville, Mr. Collin George has an apple orchard of 225 acres.

All of the fruit grown in Erath County is of the first class, and commands in the market a price equal to that paid for any with which it comes in competition. There is just sufficient of iron in the soil to make it rich, both in color and flavor, while the altitude and the dry climate give it a firmness that makes it especially good for shipping purposes. The fig is another fruit which grows luxuriantly in Erath County, and within a few years Texas figs will be on the market in competition with those of California and other fig-growing States.

As yet little has been done toward growing vegetables for commercial purposes, but as the soil is very much like that of East Texas, and the climate milder, there can be no doubt that vegetables may be grown as profitably there as in any part of East Texas. Much progress has been made, however, in the growing of cantaloupes.

Chemical analysis shows that the cantaloupes of Erath County have only one per cent less sugar than the Rocky Ford melons of Colorado, which are grown by irrigation.

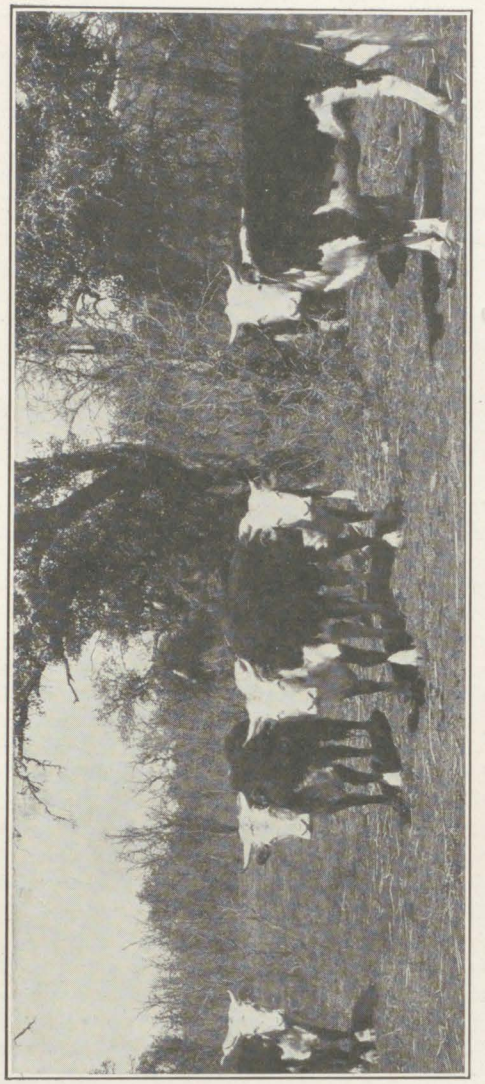
While fruit growing will undoubtedly become one of the most important industries of the county, the progress so far made makes a very small ratio to the acreage that can be devoted to it. As yet there are perhaps not more than six commercial orchards in bearing, though, it is estimated, 100,000 fruit trees were set out last year. When these shall come into bearing, Erath County will take rank among the first fruit-producing counties of Texas.

Meantime, it must not be assumed that Erath must be altogether a fruit-raising county, for the usual

field crops grow there abundantly. The black land there is just as fruitful of cotton as it is anywhere else, and in the same field wheat grows well. Corn and oats also do well. The statement sometimes made that the rainfall is not sufficient to make the growing of the cereals profitable is the result of ignorance. The government reports show that the annual rainfall of Erath County is 36 inches, and while it is not so well distributed as in some other sections of the country, the soil is such that it retains moisture much longer than that of closer texture. Mr. Jinks thoroughly disproved this fallacy during one of the most unfavorable seasons Erath County has ever had. He made an experiment to determine if the seasons were unfavorable to the growing of corn. It was his theory that the farmers who failed did so because they did not cultivate their corn enough, and he proved it by raising nearly 50 bushels per acre during a season which, as has been said, was one of the worst the county has ever known. It may be added that year Mr. Jinks raised enough corn to last him three years.

There are two other facts of recent discovery that are certain to be important factors in the development of Erath County. One is the demonstration that Egyptian cotton may be grown profitably there. This has been shown by Mr. Ellis, before referred to, who last year with some seed sent to him from Washington proved to the satisfaction of himself and all his neighbors that that staple, which is a substitute for wool and commands a fancy price, can be grown there even better than the short staple cotton. This year Mr. Ellis has planted all of the seed saved from last year's crop.

The other fact referred to is the discovery that alfalfa may be grown there. It may seem incredible to most people that this discovery is just being made, but it is only another evidence of the arrested development of the country, for until last year there was no



GRADED CATTLE HAVE SUPPLANTED THE LONGHORN.

alfalfa grown in Erath County. Experiments were prompted by an increased desire to grow fine stock made by the establishment of the packing houses at Fort Worth. Experiments so far made show that from four to six tons per acre may be cut every year.

The wisdom and the great profit of diversified farming are no place more forcefully shown than in Erath County. There are a few farmers there who have been known to hold their grain and cotton a year, or until the price suited them, whereas others who have not taken advantage of the opportunities offered them have had their crop mortgaged before it was grown. It is altogether a matter of method. Certainly there is no better opportunity anywhere for the homeseeker. Land is cheap, so cheap that men have been known to make the purchase price from one year's crop. Raw land contiguous to a town may be got at from $8 to $15 an acre and cultivated land at from $15 to $30, while land farther from a town is still cheaper. Not one-third the tillable land in the county is in cultivation.

Erath County has a population of about 36,000. The principal towns in it are Stephenville, which has a population of 3500; Dublin, whose population is 4000, and Thurber, which is about the size of Dublin. The last named town, as has been stated, is a mining town. Stephenville and Dublin are on the Frisco System, only 14 miles apart. Both of them are lively little cities with most of the modern improvements.

Comanche County.

Land which will produce from $10 to $20 an acre the first year it is put in cultivation may be bought in Comanche County for from $5 to $10 an acre. The statement is incredible, but it is true, for there is living evidence of it. It is so because there is a great deal more land in Comanche County than the people now there can cultivate, and there are too many fed

stock on the market to make grass cattle profitable. And yet, cheap as the land is now, prevailing prices represent an enhancement in value of nearly 100 per cent in ten years. Cultivated land, land on which there are improvements, of course, costs more. This sells at from $15 to $35 an acre, and even at that price will return a percentage of profit to the intelligent farmer that the merchant rarely hopes for. There are 601,260 square acres in the county, and less than 200,000 acres are improved, There are probably not more than 20,000 people in the county. In the town of Comanche, if you express doubt as to the statement that land can be paid for in one year from its produce, they will refer you to dozens of men who have done it, and they will name scores who have made 50 per cent of the purchase price from the first year's cultivation. They are prosperous in Comanche County, for they have had less difficulty in adjusting themselves to the changing conditions than the people of perhaps any other county in the Brownwood country. It was originally wholly a stock country, but when the people discovered that grass-fed cattle could not compete with corn-fed cattle, they very quickly fell into stock-farming, and they have gradually evolved a system of pure farming that makes stock-raising the incident.

In Comanche County nearly all the farmers espouse the sandy side of the ancient controversy. In support of their contention they will cite instances of where cotton failed on the black land and made a fair crop on the sandy land, and they will add that the sandy land farmers have failed with corn only twice in the last ten years. It may be that they are sandy land exponents because three-fourths of the land of the county is sandy land, but they offer better reason for their faith when they tell you that they make from one-half to three-fourths of a bale of cotton to the acre and from 20 to 60 bushels of corn to the acre, depending of course on the season. As confirmation

of this, the records of the railroads show that last year, which was one of the poorest cotton seasons in Texas, they shipped 16,769 bales from Comanche; 14,000 from DeLeon, and 2000 from Proctor, while for the season of 1901, which was a good one, over 23,000 were shipped from Comanche alone.

They do not grow much wheat in Comanche County, because wheat grows best only on the darker soil, which constitutes less than one-fourth the county's surface; but they grow oats in abundance, more than enough for their own needs; sorghum cane, millet, and of late they have begun to grow alfalfa as feed for the fine stock which is being bred in that county. Comanche promises to take front rank as a producer of graded stock, for of late many Red Polled and Hereford cattle have been introduced, while the old breed of hogs is almost extinct.

Some of the other field crops grown in Comanche County are peanuts, broom corn, potatoes and onions. Potatoes do especially well there.

Fruit for the local demand has been grown for a number of years, but this will be the first year that any organized effort has been made to market it. Almost unconsciously the production of fruit has become so important that the growers have become aroused to the necessity of marketing it, and an organization has been formed for that purpose. Within three years the production will be five or six times as great, for within the last two years nearly 200,000 trees have been set out, according to the estimates of nurserymen. There are, however, two or three large matured orchards, notably one belonging to Mr. H. H. Kilpatrick, four miles from the town of Comanche. Mr. Kilpatrick has in 50 acres, 18 acres in apples, 10 in peaches, 5 in pears, all of which are bearing trees. The rest of the land is set out in blackberries and dewberries and in fruit trees that have not yet come into bearing. On his 18 acres of apples Mr. Kilpatrick got on an average one bushel

to a tree when they were six years old, and he sold the apples at $1.25 a bushel in his orchard. As Mr. Kilpatrick plants 80 trees to the acre, his orchard netted him a profit of $100 an acre. Apples are the most profitable of the fruits in Comanche County. This is so for the reason that the demand for them is greater than it is for peaches or pears, and partly for the reason that they do not have to be marketed as soon as they ripen, for they keep well. Peaches, however, will soon be grown in large quantities in

TEXAS MULES.

Comanche County, but to avoid any danger of glutting the market with Elbertas, other varieties, such as the Chinese clingstone, are being set out. The new varieties ripen before and after the Elbertas. The apples raised are the Ben Davis, Arkansas black, black Ben Davis and the Shockley, none of which in Comanche County at least has ever failed to yield well, and orchardists say a hardier tree grows nowhere. The pears are the Bartlett, the L. B. Jersey

and the Keefer. The trees of Comanche have never been afflicted with the blight, and while in the beginning the farmers began the growing of peaches with much trepidation, they now look upon them as sure as any crop they make.

The town of Comanche, which is the county seat, is one of the best retail trading points on the Frisco System in Texas. It has a population of about 3000, and has such conveniences as telephones, waterworks and electric lights. It has two banks. DeLeon, Sipe Springs, Proctor, Newburg, Fleming, Hazel Dell, Lamkin and Sidney are the other towns in the county.

Brown County.

According to the United States census, there were 489,695 acres in farms in Brown County in 1899.

According to the same authority, the value of the products of these farms, "not including those fed to live stock," was $1,040,040.

This shows a productivity of nearly $21 per acre, leaving out of consideration the value of products fed to live stock.

But as not more than one-half the "land in farms" was actually under the plow, the productivity per acre was in excess of $40.

Raw land may be bought at from $3 to $10 per acre; improved land at from $8 to $10 per acre.

One-fifth of the tillable land of Brown County is in cultivation.

These are "cold facts" concerning Brown County taken from the most reliable data obtainable, and they constitute an argument in favor of Brown County as the homeseeker's opportunity which for eloquence and force could not be equaled by volumes of words.

Yet they do not make the whole argument. One in writing of the opportunities of Brown County is

under the embarrassment of fearing to tell the whole truth lest he be suspected of exaggeration. It is incredible that such opportunities as those that are offered in Brown County should have been so long neglected; for it is an impeachment of men's intelligence which one would hesitate to make, if it were not that at the same time he could excuse them on the plea that these opportunities have been hidden from the world.

Brown County is down in Southwest Texas, 140 miles from Fort Worth, on the Frisco System. It is the heart of the Brownwood country, which perhaps so derives its name from the fact that Brown County is in every essential feature typical of the whole section. There are 920 square miles, 588,800 square acres of it made up of hill and valley, hills that rise almost 1000 feet and valleys that are from one to seven miles across. The hills are covered with trees; every valley has its stream, and along these streams is a soil no less fertile than that of the Nile and more potential in that it yields all the necessities and many of the luxuries of man.

Cotton, corn, wheat, oats, alfalfa, fruits and nuts, while cattle to feed hundreds of thousands, and sheep whose fleece clothes as many more, roam its hills from one year's end to another—these are some of its products.

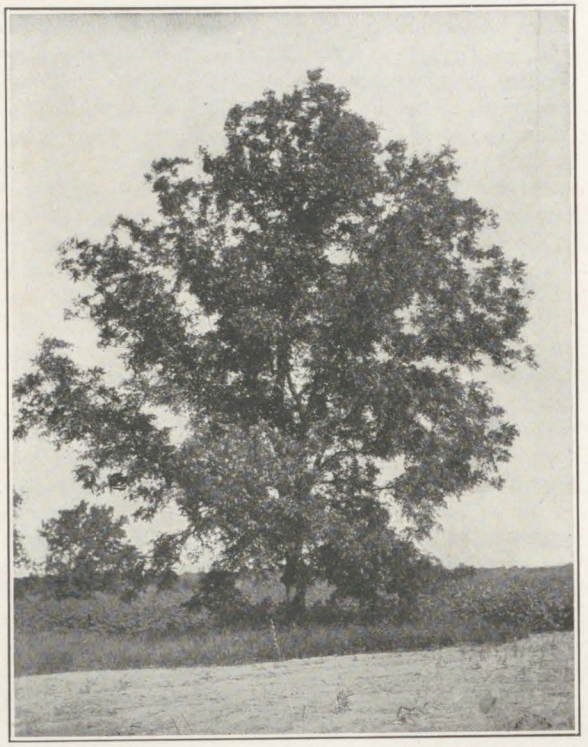
Cotton yields half a bale to the acre always. The farmers of Brown County have never had the boll weevil, nor do they fear it, because their cotton patches are at an altitude not conducive to the health and propagation of the weevil. Wheat yields from 15 to 25 bushels to the acre, and some Brown County farmers by superior cultural methods during perfect seasons make from 40 to 45 bushels per acre. An ordinary oat crop is from 40 to 60 bushels to the acre, and from 90 to 100 bushels have been made in perfect seasons. Corn yields from 15 to 30 bushels to the acre ordinarily; Kaffir corn from 60 to 80

bushels and alfalfa from 2 to 3 tons per acre on dry land and from 5 to 6 tons per acre on irrigated land.

These are the field crops. When one speaks of fruits one is tempted to consider only the possibilities, for the achievements, though not inconsiderable, are interesting chiefly as evidence of what will be done when the opportunity is fully seized. Peaches, apples, pears, plums and grapes are the fruits grown. The peaches are mostly Elbertas, but because they do not keep as well as is desirable for shipping purposes, a hybrid species which keeps better is being introduced, and when these trees come into bearing, peach shipments from Brownwood will be a regular thing. At present the growers of Brown County supply only the local demand.

The production of apples and pears is greater. Both these fruits are being shipped to the markets of the State, and when trees set out within the last three years come into bearing, horticulture will take rank as an industry with agriculture, for fruit-growing is no longer an experiment in Brown County. Those who have given fruit culture even the cursory attention accorded to a side issue have found it profitable. Apple and pear trees yield from $1.50 to $3 net profit per tree, and they plant from 60 to 70 trees to the acre. This fruit is nowhere surpassed as to quality. This is especially true as to pears, which are mostly of the Bartlett variety. The soil is so rich that the pears will average 15 to 16 ounces, and it has the chemical properties to give them a color and flavor which make them in every way equal to the pears the demand for which California is unable to supply. Apples have proven even more profitable, and varieties which from Arkansas have the right of way in the market are grown to no less a degree of perfection in Brown County. Heretofore Brown County has shipped by express, with occasionally a carload lot. This season the shipments will be heavier, but it will be two or three

years, or not until orchards recently set out come into bearing, before trainload shipments are made, and then the apple growers of Missouri and Arkansas will have lost the monopoly which they have enjoyed for ten years in a considerable part of the country's market.



PECAN TREES.

Brown County is also destined to become a considerable factor in the grape market. There are already some commercial vineyards there, and grapes

have been shipped profitably by express for several years. The vineyards are constantly being increased, but the acreage devoted to vine culture is only a fraction of that available for this purpose. That the soil and climate of Brown County make that rare combination necessary to grape culture has been proven to the satisfaction of those who have grown them, and the best possible proof of it is that they are constantly increasing the acreage in vineyards.

Another fruit in which Brown County has advantages enjoyed by few others is in the growing of Japanese plums. In most other sections of Texas there has been one fault that has prevented the highest success in this kind of horticulture. Elsewhere the trees have flourished and they have borne such an abundance of fruit that it has been necessary to pluck half of it early in the season to relieve the branches. The promise is always magnificent, and the performance nearly as often has been a disappointment, because for some reason which seems not to have been clearly determined, most of the fruit has dropped from the trees just before it matured. This defect has operated to deter fruit growers in other sections of Texas from giving that attention to plums which the profit from them justifies. But in the Brownwood country, and in Brown County especially, the growers have been placed under no such disadvantage, and as a consequence, plums are being grown in large quantities in Brown County, and the production is being increased constantly. The great advantages of Brown County for plum culture have been recognized by so competent a nurseryman and orchardist as Prof. E. W. Kilpatrick, of Collin County.

But great as are the opportunities for fruit growing in Brown County, there is still one other department of pomology in which its advantages are transcendent if not unrivaled. These are in the growing of pecans. Already Brown County probably produces more pecans than any other county in the United

States, but this production is only a fraction of the quantity which it must produce when the immense profit from the cultivation of pecans shall come to be appreciated. In seasons when the yield is especially good, they ship from 90 to 100 carloads from Brownwood. A carload will average 20,000 pounds, and as 6 cents a pound is an ordinary price, 90 carloads would bring to Brown County $108,000. During no season within the last ten years has Brownwood shipped less than 25 carloads of pecans.

The largest pecan orchard in the world is only two miles from Brownwood. It is the property of the Swinden Pecan Orchard Company. The pecan orchard itself is only a part of the immense farm of 1280 acres of land. There are about 400 acres in pecans, there being 11,400 trees. These trees yield from one to five bushels of pecans to the tree, and pecans sell from $3 to $4 a bushel. On this basis, an acre of land in pecans will yield on an average $400 an acre. These pecans are cultivated. Sprouts from trees which yield the best nut are grafted on trees which do not yield so good a fruit, and in this way the whole crop is made uniform and what is called a "commercial pecan" is produced. By grafting trees are brought into bearing when six years of age. Not all the trees in the Swinden Pecan Orchard Company's orchard are in bearing. This orchard is irrigated by pumping water from Pecan "Bayou," which is not a bayou, but a creek that forms one of its boundaries. On this same land from four to six tons of alfalfa are cut from an acre of ground every year. But this is not a full illustration of the capacity of this wonderful land, for hundreds of head of hogs are pastured on the alfalfa which grows in this pecan orchard, so that the land not only grows pecans and alfalfa, but simultaneously puts fat on hogs.

Nothing could demonstrate more forcefully the wonderful capabilities of Brown County land than this splendid farm, which is under the management

of Mr. George Ingram, with whom farming is both a business and a science. While pecans make the principal crop of the farm, and while more acreage is devoted to this fruit than to anything else, it is by no means all that is grown there. Eight farm hands are worked on it constantly, and at certain seasons there are as many as forty. There are hundreds of acres in corn, which supplies more than enough for all the work stock of the farm and for the hundreds of fine cattle besides. There is likewise a large acreage in oats, with fruit of all kinds and hundreds of head of graded cattle in all parts of the farm. Dairying is also an important feature of this farm. Butter which sells for 35 cents a pound is made by an expert, and this department of the farm, as does every other department of it, pays a big profit. It is in every respect a model farm, and, what is of more importance, it pays a big percentage of profit on the investment. It shows that Brown County land, when handled properly, will pay a bigger profit than can be hoped for from any mercantile business.

As has been said, not more than one-fifth the tillable land of the county is in cultivation. Unimproved land can be bought from $3 to $10 an acre and improved land from $8 to $15. All of it is fertile. A large part of it is susceptible of irrigation from the Colorado River and numerous smaller streams that traverse its valleys. In addition to the water obtainable in this manner, wells yield an abundance for all ordinary purposes, and the character of the country is such that storm water may be stored at a minimum of cost and trouble. The soil is of two kinds, as is all that of that section. In the valleys it is a dark chocolate color with a clay subsoil, and in the uplands it is more sandy with the same kind of subsoil which retains the moisture better than the heavier land. The subsoil in the valleys is from six to twelve feet deep, and on the uplands from two to five feet deep, showing that generations can not exhaust it.

Stock raising continues to be a considerable source of Brown County's wealth, and it will always be so, for the hills with their fine grazing and heavy timber to protect the stock from the few cold blasts that strike the country will always serve this purpose best.

Brownwood, the capital of the county, is the largest town on the Frisco System west of Fort Worth. It has between 5000 and 6000 people, and is growing every minute. It is the market for a wide area of country and does a large business, both wholesale and retail.

ANGORA GOATS.

Brownwood has an oil mill, two bottling works, an ice factory and two flour mills.

McCulloch County.

Though properly a part of the Brownwood country, there is much in McCulloch County that distinguishes it from the other counties of that section. It is the most sparsely settled and the least developed of any

of them. It was organized in 1862, but at that day it was the frontier of civilization and the few people who had the hardihood to settle there were forced to leave because of Indian depredations. The county was organized again in 1876. Its growth has been slow since then, not because of a lack of resources, but because it was only a few months ago that it felt the awakening touch of a railroad.

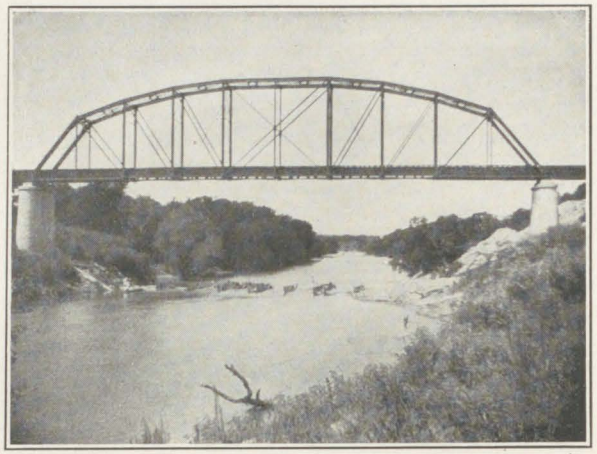
Until the line of the Frisco System was extended to Brady from Brownwood there was no way of marketing whatever products it might have had to sell, and of necessity the people confined themselves to stock-raising, driving their cattle to Brownwood, where they were loaded on cars for shipment to the markets.

This is the reason that McCulloch County has been the laggard of its section. That it has all the natural resources necessary to give it rank with the rest of the counties in the Brownwood country, there can be no doubt. Not so great a proportion of its soil is susceptible to cultivation as in the other counties of that section, for the surface of McCulloch County is broken, and in some parts it is almost mountainous. But for every hill, every mountain, there is a valley, and it is one of Nature's compensations to concentrate in valleys the fertility that is denied to the hills. So it is in McCulloch County. The hills grow nothing but grass and mesquite trees, and while they afford excellent pasturage for cattle and sheep, they yield no reward to the tiller of the soil.

But what a striking contrast in the valleys! There the soil is deep and fecund. It is fruitful in a prodigal degree. Rains wash the hills, rob of their pollen, to impregnate the valleys, and thus every year regenerate and invigorate the soil.

These valleys are numerous. There the soil is heavy, though there is a perceptible proportion of sand in it. As one approaches the foothills the proportion of sand is greater, and on the level plains, which make a step between the valleys and the hills, the soil is distinctly

a sandy loam. Almost every valley is divided by a living stream. Some of them are fast-flowing, at times becoming torrential, and they thus make the task of irrigation easy, not only for the valleys, but for the plains. In the valleys cotton, corn, oats, wheat, barley and sorghum cane are grown, and the yield in these crops is always good, even with the antiquated agricultural methods practiced there. On the uplands oats, corn and forage are the principal field crops grown, while here also are grown most of the fruits. These



COLORADO RIVER BRIDGE, NEAR WINCHELL, TEX.

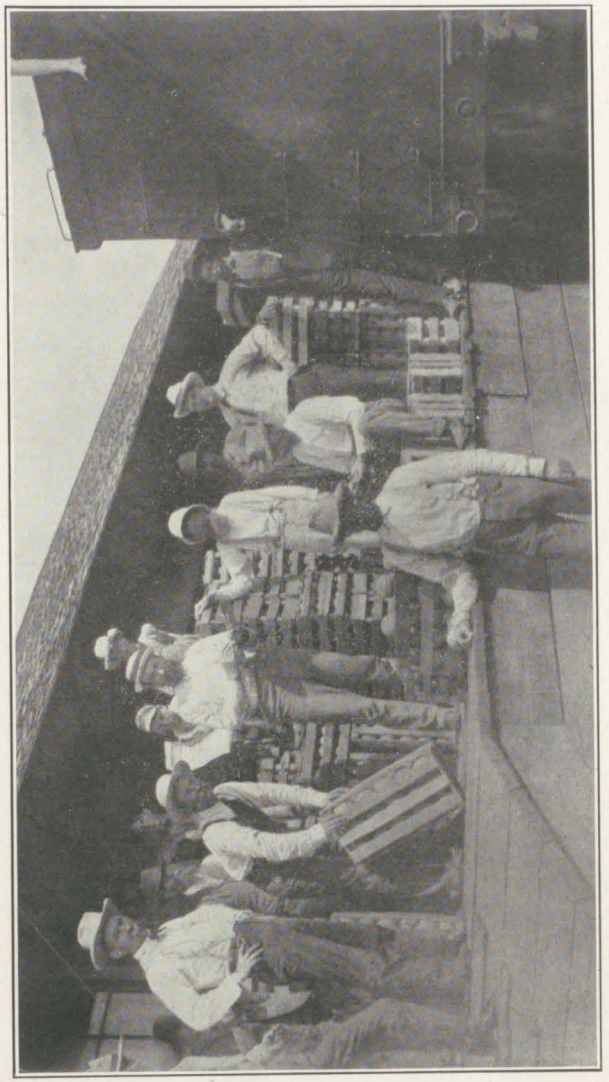
are the same as are grown in other parts of the Brownwood country, and the yield is no less satisfactory, both as to quantity and quality, though of course the absence of railroad facilities has precluded the planting of commercial orchards. However, the trees set out have given ample proof that horticulture may be made to pay as well in McCulloch County as it has in contiguous counties whose soil and climate vary from it in no sensible degree.

With the advent of a railroad and the establishment of two immense packing plants in Fort Worth, McCulloch must be a paradise for the stock farmer. The pasturage is splendid and all kinds of forage crops grow abundantly. Already the people there are beginning to take advantage of their opportunity. Heretofore the class of cattle raised in McCulloch County has been poor as cattle are rated these days. But of late registered and graded stock have been introduced, and instead of allowing their cattle to graze on the hillsides the year around, the farmers are beginning to feed them part of the time, with the result that there must be a larger revenue from this source than ever before.

Geologists have predicted that the hills of McCulloch County will be found rich in minerals. That there is a good quality of coal there is certain, for several veins have been uncovered in the vicinity of Waldrip, which is near Brady. Of course they have not been worked because of the lack of transportation facilities. It is believed, however, that they are a continuation of the vein in Erath County, which at Thurber is producing 1500 tons a day. Several mineral springs in the county are also accepted as additional evidence of the presence of minerals.

There are 667,520 square acres in the county and not more than 30,000 are improved. There are not more than 4500 people in the county. The towns are Brady, the county seat; Winchell, located on the Frisco; Voca, Waldrip and Dukes.

Improved land has been selling at from $5 to $15 an acre and unimproved land at from $2 to $6 an acre.



LOADING CANTALOUPES AT STEPHENVILLE.

THE BLACK LAND COUNTRY

THERE is a section of country in Texas extending from the northern border southward into Travis County called the Black Prairie Region. It gets its name from the circumstance that its soil is black and waxy. This region in contour is not unlike a boot with the foot resting to the north, and spreading, east and west, from the eastern limit of Cooke County to the eastern extremity of Red River County, a distance of about 125 miles. Its northern edge is fringed with cross timbers, and these, extending down the western border, run almost two-thirds its length, varying in width from two to twenty miles. This soil is famed for its fertility. The twenty-first annual report of the United States Geological Survey makes this statement concerning the Black Prairie of Texas:

"The prairies are characterized by black or dark colored soils derived from a substructure of calcareous marls, or chalky limestones, which, compared with the less calcareous lands of the bordering regions are unusually fertile, and are marked by an entirely different flora. In fact, these calcareous soils, especially those of the black prairies, are the most fertile of the trans-Mississippi region. This fact, together with the comparative scarcity of untillable lands, such as stony hills, bluffs, etc., except in the western portion of the area, enables it to support the densest agricultural population of Texas relative to area, and makes it the seat of the most important inland cities, such as Paris, Bonham,

Denison, Sherman, Gainesville, Fort Worth, Waco, Weatherford, Taylor, Belton, Temple, Austin, New Braunfels, San Marcos and San Antonio.

"In addition to the agricultural features, the underlying rock sheets embrace a series of water-bearing strata whose artesian well conditions are the immediate occasion of this paper. All the factors, agricultural, hydrographic, physiographic and vegetal, however, which determine human habitation, are the direct result of the composition arrangement and weathering of the system of chalky rocks (chalky sands, marls, clays and limestones) which underlie the surface and which must necessarily be understood, as described on a later page, before one can gain a correct knowledge of the resources.

"Altogether these prairies are more comparable in some parts to the Downs of England, and in others the hills of France than to any other region. So far as the United States is concerned, this country is unique, without analogy or counterpart. In topographic, economic and cultural aspects, it is a distinct geographic region."

This is the impression that the black prairies make on the scientist. To one not versed in the science of it, the impression is no less emphatic. The black waxy soil is a wonderful compound of Nature. It exudes fertility and produces the fruits of the earth with such prodigality that there live the agricultural aristocracy of Texas. To the eye it is a magnificent spectacle, these broad, level prairies, here and there relieved by slopes called valleys, and occasionally decorated with trees of immense stature, which attest the vigor of the soil. It is well watered; streams are frequent, while the indentations of the surface makes lakes numerous, for the rainfall in this section is so regular that they seldom are dry. In addition to these sources of supply, there is underlying most of the black prairie region, as the Geological Survey's report states in another chapter from that

quoted, an artesian stratum which is tapped at varying depths but never beyond the convenient reach of the implements of man.

Grayson County.

On these black prairies are the big, populous and wealthy counties of Texas. There are twenty-one of these counties, and of these twenty-one the Frisco System penetrates seven — Grayson, Lamar, Collin, Dalls, Denton, Tarrant and Johnson, the biggest of these big counties.

Of these superlatively big counties, Grayson is the biggest. It is one of the aristocrats among the counties. With a population of more than 70,000 and assessed values of over $20,000,000, it is one of the most important industrial entities in Texas. But greater proof of its greatness than this is its fructifying soil, 619,520 acres of it, and scarcely a foot that will not yield bounteously to the necessities and comforts of man.

The idea of superiority comes over one almost unconsciously after a few days' stay in Grayson County. It is not the aristocracy of age, nor of ancestry, for, though organized in 1843, it is younger than most of its immediate neighbors. But there is, nevertheless, an air of dignified maturity about it that distinguishes it from communities that have grown more hastily and nervously. Its present eminence and wealth have been the result of slow but certain evolution. Its prosperity and its greatness have been builded on a deep and broad foundation. Nearly every man in Grayson County is an old resident, no matter what his age; for, if young, the probability is his parents have lived there for a generation or more. A larger part of its residents are "to the manor born" than perhaps in any other county in Texas. The society of Grayson County is rooted to the soil. In every part of the county there are old family seats,

homesteads whose masters are the scions of successive generations. There is a kind of gentry made by the soil. It is to them in truth home, and as a consequence, nowhere are civic pride and local patriotism greater.

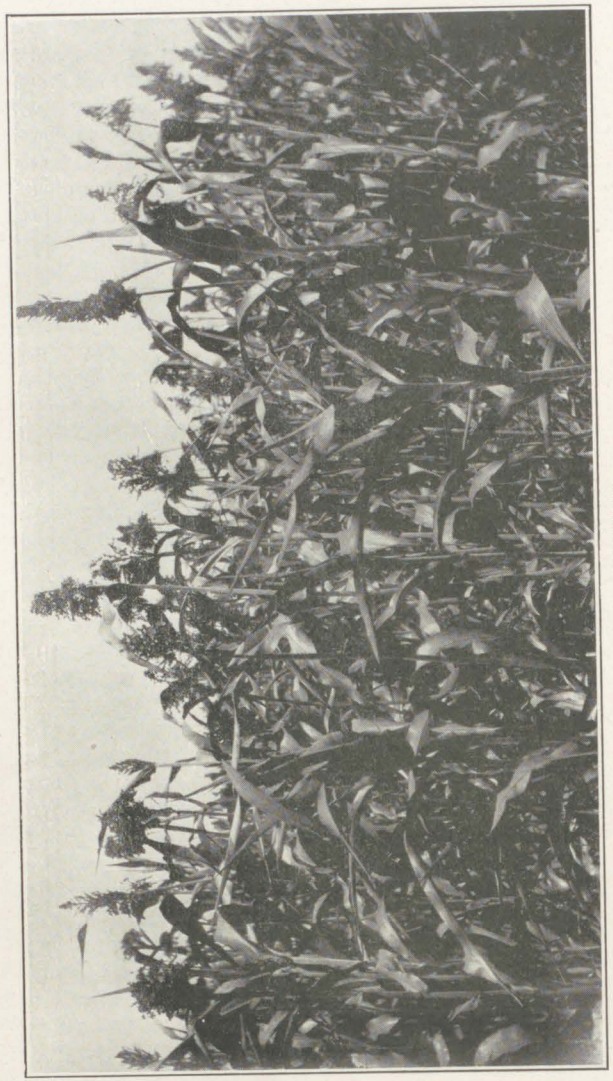
Grayson County is its own assertion and its own proof. It is of the black land, though, as if to give it variety and widen its opportunities, Nature put a border of sandy soil at its northern extremity, in which it may grow the fruits that do not thrive so well in the black land. The variety of soil within the same county is Nature's command to diversify. How well this command is obeyed the census reports attest.

According to the latest official figures, which were for the year 1899, there were in Grayson County 5762 farms, whose average size was 91 acres. Only three counties in Texas, all of them neighbors of Grayson, have more farms, and in very few counties is the average size of farms so small. Another fact which the figures reveal is that of its 619,520 square acres, 529,929 of them are in farms, leaving less than 100,000 acres for townsites, waste land and other non-productive purposes. It is doubtful if any county in the United States can show a smaller proportion of non-productive land. The census also shows that a larger percentage of the farms is worked by their owners than in any other county in Texas. Another fact which would be incredible if it were stated with less authority than that of the United States census, is that the value of the annual production of the land in Grayson County is nearly 40 per cent of the value of the land and its improvements, exclusive of buildings. The figures are: Value of land and improvements, except buildings, $11,636,210; value of buildings, implements and live stock, $4,936,397; value of products, $44,175,075; total value of domestic animals on farms, $2,157,245. The value of Grayson County's live stock is greater than that of any other county in the

State, except two, which fact is due more to the quality of the stock than to the numbers of the herds, for there are dozens of counties in Texas that have more cattle than there are in Grayson County.

Grayson is the banner corn county of Texas. Perhaps it is because of this fact that it has so much fine stock. The census report on the farming operations for 1899 shows that 3,681,640 bushels of corn were gathered from 104,668 acres, and since then both the acreage and the proportion of yield have increased. In that year no other county in Texas had as much as 100,000 acres in corn. Grayson County during the same year raised more barley than any other, and of oats it produced 2,414,950 bushels on 61,824 acres. In the production of this cereal it was excelled by only one county in the State. Of wheat it produced 724,000 bushels, and in this respect it was surpassed by only two counties in the State. Only one county had the distinction of producing more cultivated hay than Grayson and since then Grayson made the largest alfalfa field in Texas, so that now it is undoubtedly first in the production of cultivated hay.

In the growing of potatoes Grayson County has assured pre-eminence. Though the census figures give it this distinction, since then there has been a great increase in the acreage in this crop, so that now in the production of potatoes, one of the most profitable crops grown in this State, it has but few if any rivals. In 1889 only 378 acres were planted in potatoes; in 1899, 1215 acres, an increase of nearly 400 per cent in a decade. But, great as this increase was, that since the census figures were gathered has been even greater. In 1899 the county produced 88,870 bushels of potatoes on 1215 acres, or more than 73 bushels per acre. This year it is believed Grayson County will have nearly, if not quite, 150,000 bushels of potatoes for sale. From Sherman alone over 600 carloads were shipped last year, and the shipments this year will in all probability approximate 1000 carloads this year.



SORGHUM.

First in the production of corn, first in barley, second in oats, first in potatoes, first in fine stock and third in wheat, make Grayson County's record, as shown by the census report. This, of course, is not the catalogue of Grayson County's agricultural products. In the same year it raised 89,891 bales of cotton, nearly 3000 tons of broom corn, made over 19,000 gallons of sirup, together with numerous minor crops that would make a long list.

Grayson's pre-eminence as an agricultural county has somewhat obscured its importance as a fruit-growing county. The fact is, much of its soil, especially along the northern border and in the cross timbers of the western boundary, is especially adapted to the growing of fruit, nor is this opportunity neglected. In 1899 there were 138,644 fruit trees in Grayson County, and the revenue from these was $41,897. Only three counties in the State excelled Grayson in fruit-growing at that time, but since then the counties of East and Southeast Texas have made greater advance in this respect than Grayson, so that while its advance has been constant, it has lost some of its comparative importance in this industry.

Peaches, pears, apricots, cherries, grapes, plums, strawberries, blackberries, raspberries and currants are the fruits grown most profitably. That they may be grown to the greatest excellence along the northern border of the State has been amply demonstrated by Mr. T. V. Munson, who, though more of a nurseryman than a commercial fruit-grower, has for the purpose of developing different species of trees and showing the capabilities of the soil and climate, produced all kinds of fruits near Denison. Mr. Munson is one of the world's most eminent arborists and vineyardists. He devotes 130 acres to the propagation of trees and grapevines. Five or six acres are in vineyard. As a hybridizer Mr. Munson is recognized as an authority the world over, and it is doubtful if he has a rival. It was Mr. Munson, who, when the winemaking industry

of France was threatened by the phyloxera, a parasitic disease which attacks the roots of grapevines, bred a species that resisted the parasites without changing the variety or quality of the grapes, merely establishing the same variety on roots that were hardier than those native to the country. For this great service the French Government decorated Mr. Munson.

It is superfluous to say that a county of such resources as Grayson has a number of thriving towns. They dot the whole county, and two of them, Sherman and Denison, are small cities. Sherman is the county seat. With its suburbs it has a population of 15,000. It is one of the oldest communities in North Texas and is built up in that solid manner that gives it an air of permanence. It is a city of beautiful homes that bespeak the culture of its people. In addition to the St. Louis, San Francisco and Texas Railway, which is part of the Frisco System, it has five steam railroads, and in addition, a trolley line that connects it with Denison, ten miles to the north. About forty passenger trains enter Sherman, exclusive of those on the Interurban.

Sherman has three national banks, one of which has a capital, surplus and undivided profits of $800,000, and is one of the largest financial institutions of the State. It has ten large wholesale houses, and in addition is the headquarters of a lumber firm which has branch houses in all parts of North Texas and the Indian Territory.

Nor in a manufacturing way is it less important. It has a wage roll of nearly 1500 men. It has a cotton mill and a seamless bag factory, which has recently been so enlarged that it will give employment to 300 men. It has two flouring mills, among the largest in the State, which employ 150 hands, and much of the product of their labor is exported to Europe.

There are two cotton oil mills in the city. One of them is the largest in the world. They give em-

ployment to 150 men, and have a capacity of 425 tons of cotton seed a day. It has also a packing house, which gives employment to 100 men and affords a market for most of the cattle and hogs raised in the county. Its compresses handle more than 100,000 bales of cotton annually and give employment to over 50 men.

Not the least of Sherman's distinctions is its splendid system of schools. It is sometimes called the Athens of Texas because of its educational institutions. Its public school enrollment is about 2500, but in addition to these there are drawn to that city every year about 500 pupils who attend the six private colleges and seminaries located there.

But ten miles north is another bustling little city of about equal population. It is Denison. The contiguity of the two cities and the almost even pace they have kept in the march of progress have engendered a rivalry, which, instead of being destructive of the prosperity of either, has been advantageous to both. They are called the twin cities. Some of the most far-sighted citizens of both foresee the time when the intervening ten miles will be built up and the two merged into one, which they declare, and not without reason, will make it the largest city in Texas.

Denison's chief distinction is perhaps its railroad facilities. It is only about four miles from Red River, and it is the Frisco's first station in Texas on its main line. It has, in addition, three other systems of railroad, one of which has its terminus there, and another of which has seven division headquarters there. These steel highways of commerce radiate from it in every direction. It has fifteen railroad outlets, and these will be increased by four when roads now surveyed shall have been finished. Over 1500 railroad men have their homes in Denison.

Commercially Denison is scarcely less important. Just across the line from the Indian Territory, one of the most fertile spots in the American Union, it

is the trading point for a large section of country which is destined to a growth which will in a few years challenge the attention of the whole country. There are seven large wholesale houses whose business is constantly expanding. It has two national banks whose combined capital and surplus is more than $300,000, and a trust company of $200,000. These institutions carry deposits of more than $2,000,000.

Industrially Denison has been making steady progress for twenty years. Perhaps the most important item in this respect is the large railroad shops, which employ more men than any other railroad shop in the State, with possibly one exception. As an indication of how important Denison is as a divisional point, it may be said that there are about 50 miles of switching tracks in that city.

In a manufacturing way, the mill of the American Cotton Spinning Company is the biggest; indeed, it is the biggest cotton mill west of the Mississippi. The American Cotton Oil Company has a $300,000 plant there with a capacity of 150 tons of seed daily, and the Gate City Hosiery Company's plant is the finest knitting mill in Texas. It has a capacity of 300 dozen hose a day, and its output has been sold a year in advance. There is a big flour mill there which has a capacity of 300 barrels a day, and an immense compress which handles from 50,000 to 90,000 bales of cotton annually. There are in addition to these industries an immense $100,000 ice plant, which supplies all the railroads; a foundry, a shoe factory, planing mill, two machine shops, a mattress factory, large candy factory and bottling works and a soap and broom factory.

Denison's public school system is one of its boasts. Its citizens claim the distinction of having erected the first public school building in Texas. They now have nine, with a scholastic population of about 3000. There are also several private institutions. Fifty-three teachers are employed in the public schools.

Denison has all the conveniences of a city, a magnificent system of water works, electric lights, sewerage and street cars. The city's taxable values are about $5,000,000.

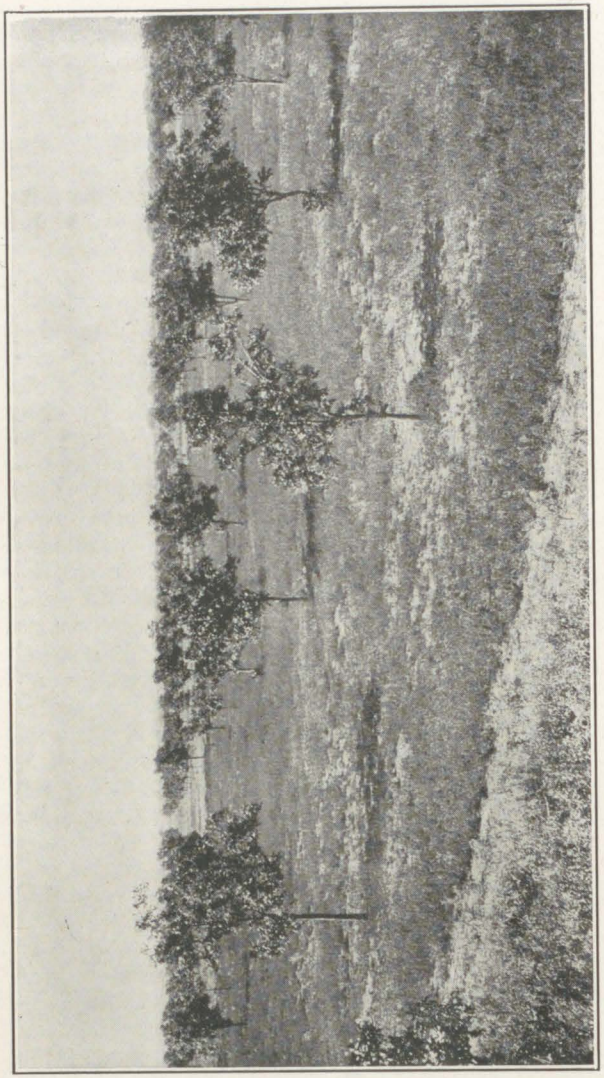
Other towns in the county and their population are: Pottsboro, 400; Van Alstyne, 2000; Pilot Point, 500; Whitesboro, 1600; Cedar Mills, 150; Whitewright, 2000; Collinville, 750; Howe, 600; Bells, 500; Gordonville, 200.

Lamar County.

A county not unlike Grayson in most of its material aspects is Lamar, in the northeast part of the State, bordering on Red River. It is one of the oldest of the North Texas counties, having been created in 1840. It was originally a part of Red River County, in which a colony of French was established in the days when Texas was a province of Mexico.

In no county in Texas are crop failures of rarer occurrence than in Lamar, and it may be stated as a corollary fact, that in no county in the State is prosperity a more uniform condition of the people. These facts, or, rather, the first, upon which the second depends, are due mostly to the presence of three distinctive soils, which relieve the farmers from dependence on any single crop, and give them a choice of opportunity seldom enjoyed by tillers of the soil. Another circumstance which adds much to their advantage is that the county is unusually well watered. Red River washes its northern boundary, large creeks run through every section of it, while the smaller streams are numerous. In addition to all this, the seasons are as propitious in Lamar County as they are in any part of the country.

But the soil is its chief asset. This, as has been stated, is of three kinds. Across the southwest corner of the county stretches a wide ribbon of that black waxy soil which seems to have been compounded by Nature for the growing of cotton and corn. It is



PECAN ORCHARD.

part of the black prairie, which Government experts have pronounced the most fertile soil in this country, a soil so inexhaustible in its fructifying properties that the use of fertilizer is never heard of, except as an experiment of curiosity. Here are grown the cotton and corn—not as the only crops, but as the chief ones, for of the 50,000 odd bales of cotton produced annually in Lamar County, the greater part of them are grown in this section. Here, too, most of the corn is grown, nearly 3,000,000 bushels annually, making Lamar County among the first in Texas in the production of this cereal.

Going north and east, the soil loses some of its consistency, becomes more alluvial and is so distinct from the black waxy that no one can fail to note the difference. Cotton, corn, oats, wheat, rye are grown here, too, and also other field crops of the black land, but this soil is not so peculiarly adapted to the growing of cotton and corn as the black waxy land is, and as a consequence there is more diversity of agriculture.

Going farther north and east, one finds the sandy land where fruits and vegetables grow with a productivity nowhere excelled.

It need not be added that in Lamar County diversification is not only a practice but a law, and it is the operation of this law, rather than the volition of the farmers, that has made Lamar one of the wealthiest and thriftiest counties in Texas.

The county has 588,800 square acres of land, every inch of which is susceptible to cultivation. But it is not all cultivated, notwithstanding the county's age, for it is only within recent times that the people have come to appreciate the value of the sandy loam. When the last official inquiry was made 427,781 acres were under fence and nominally in cultivation, but as a matter of fact a great deal of this was not actually under the plow. Notwithstanding this the annual agricultural products of Lamar County exceed $5,000,000 in value, which is about 50 per cent of the assessed

valuations, and on the basis of 50,000, which is about the population of Lamar County, shows an annual production of wealth on the farms alone of $100 for every man, woman and child in the county.

And yet, great as is the per capita production of wealth, this is only part of what the county is capable of. A large section of the most productive soil in the county is idle, and of that which is in cultivation but a fraction of it is subjected to that scientific, intensive farming that is common in older States. The soil which is idle is up in the north part of the State, especially between Paris and Red River, within five and ten miles on each side of the Frisco's line. It has been neglected until the last few years because farming and cotton-growing were almost synonymous terms, and the black land was that in which cotton grew best. One of the results has been that while the black land has enhanced in value, until it is now worth from $30 to $60 per acre, the sandy land along the river, which will yield more per acre in value, sells at half those prices. This paradoxical statement is explained by the circumstance that the farmers are only now learning to grow those products for which this sandy land is pre-eminently adapted. Here fruits and vegetables grow with a perfection nowhere surpassed, yet so recent has been the demonstration that most of the orchards are not yet in bearing. Lamar County has, in fact, been somewhat backward in availing itself of its advantages in this respect, for while counties all around it have been getting rich on the products of their orchards and gardens, Lamar County only now is preparing to grow fruits and vegetables in commercial quantities.

But there will soon be a different story to tell. Farmers are coming to learn that not all the fertility is concentrated in the black waxy soil. There are even some who declare that they would rather have one acre of the sandy river soil than two of the black waxy, and yet, the first named variety is, as a rule,

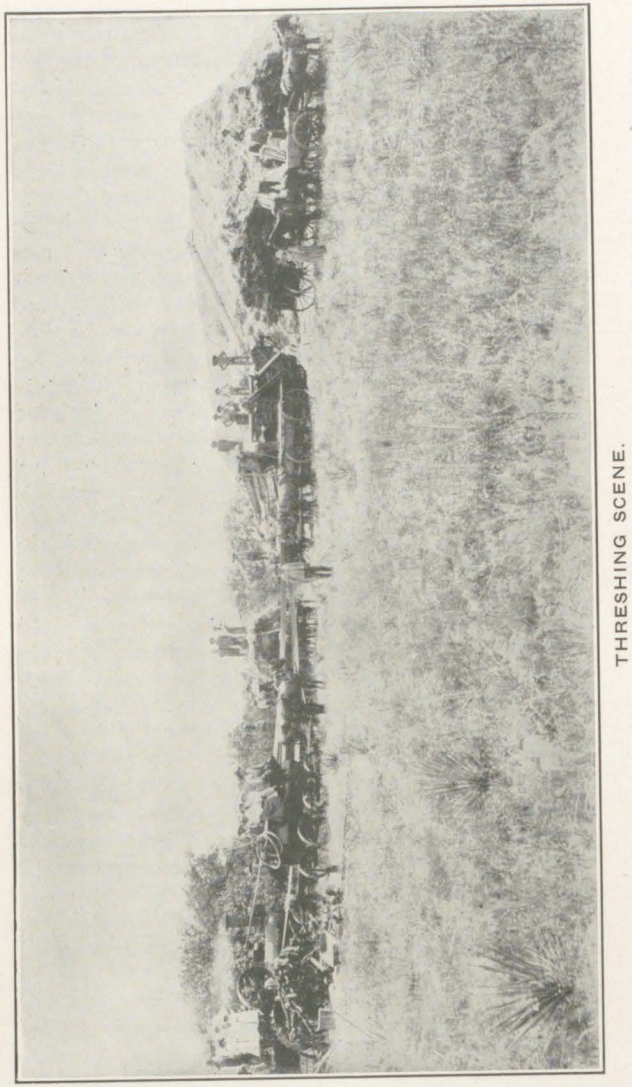
twice as cheap as the black waxy. They can not grow so much cotton and corn as the black land farmer, but they can grow more fruit and vegetables, and experience has proved that fruits and vegetables, properly cultivated, pay a larger profit per acre than cotton. This is especially true with respect to potatoes. Of the great prosperity that has come to Lamar County, no inconsiderable part of it is due to the fact that the farmers have learned the value of potatoes. It was begun only a few years ago as an experiment; now nearly 150,000 bushels of potatoes are grown in Lamar County every year. They raise two crops a season, and the first is ready for market at a time when, because of the scarcity of them, they command an especially high price. Lamar County potatoes are regarded in the markets of the North and East as equal to any that are grown. The farmers of Lamar County get a profit of not less than $60,000 a year from their potato crop.

On this same land the farmers are getting 125 bushels of peanuts per acre. They sell the peanuts at 30 cents a bushel and have in addition several tons of the finest hay grown. Here, too, promise to be some of the finest vineyards of the State. Already grapes are grown profitably; it is no longer an experiment, for last year not less than 15,000 pounds were marketed, and this year the production will be much greater.

The fruits which grow well in this section are apples, peaches and plums chiefly, and new orchards are being set out every year. Melons, of course, grow in abundance, and the revenue from these is in the neighborhood of $10,000 a year.

More attention has been given lately to dairying and the poultry business, and this yields a revenue of nearly $100,000 a year.

Recent experiments with tobacco indicate that this may before long become an important crop in Lamar County.



THRESHING SCENE.

What must in time become a resource of considerable importance to Lamar County is one of the best bodies of hardwood timber in the Southwest, a short distance from Paris. There are all varieties of ash and several of pine. There are also oaks, elm, walnut, linn, sweet and black gum, bois d'arc, cedar, black and red locust, cherry, maple, birch and box elder. The sweet gum is now being exported at a price of $40 per thousand feet. Some of the other woods enumerated are valuable for implement and furniture manufacture, and there is an excellent opportunity there for these industries.

There are, also, in the same vicinity fine clays for pottery and pressed and vitrified brick.

Paris, the capital of Lamar County, is a city of about 15,000 people, and it is one of the most prosperous places in North Texas. In one year they have put up more than 800 dwellings in Paris and over a score of big business houses, in some instances tearing down two-story brick buildings to erect taller ones. The city is a trading point for a large and wealthy territory, and it does an especially big business with the Indian Territory, a few miles to the north of it. As that country is settled, Paris' commerce must expand rapidly. There are three national banks in the city with a combined capital and surplus of $2,000,000 and it has several of the largest wholesale houses in the State. It has two large cotton oil mills, iron foundries, flour mills, and all the public improvements of a modern city. There are three railroads beside the Frisco, and three of them, including the Frisco, have their termini there.

Paris hopes for much from the navigation of the Red River. The river has been surveyed as far to the west as Denison, in Grayson County, and a determined effort is being made to have the Federal Government improve its channel so that it may be navigated to that point. Already it is being navigated to the mouth of the Kiamachi, which is 28 miles northeast of

Paris, and boats run from that point to Fulton, Ark., the year round. A railroad has been surveyed to that point from Paris, and its building is one of the projects which Paris has in hand, and which, if carried out, will be of immense benefit to the city.

Denton County.

One of the North Texas counties which is partly in black prairie region is Denton, through whose southeastern corner the Frisco System runs. Only one county separates it from Red River, the northern boundary of Texas. It is a county of many varieties. It has some broad, undulating prairies, sections that are heavily timbered and parts that are broken and are hilly. Nor is its soil less diverse. Along the prairies is a black waxy soil with an undulating surface, while in the timbered section the soil is of a sandy loam, and elsewhere it is a dark sandy loam, which yields many varieties of crops. There are 582,760 square acres of land in the county, and 528,468 acres of it are in farms, though perhaps less than two-thirds of it is actually in cultivation. There are nearly 4000 farms in the county, and, as a rule, they are small. The farms and their improvements are valued at about $10,000,000, and the value of the annual products is in the neighborhood of $5,000,000.

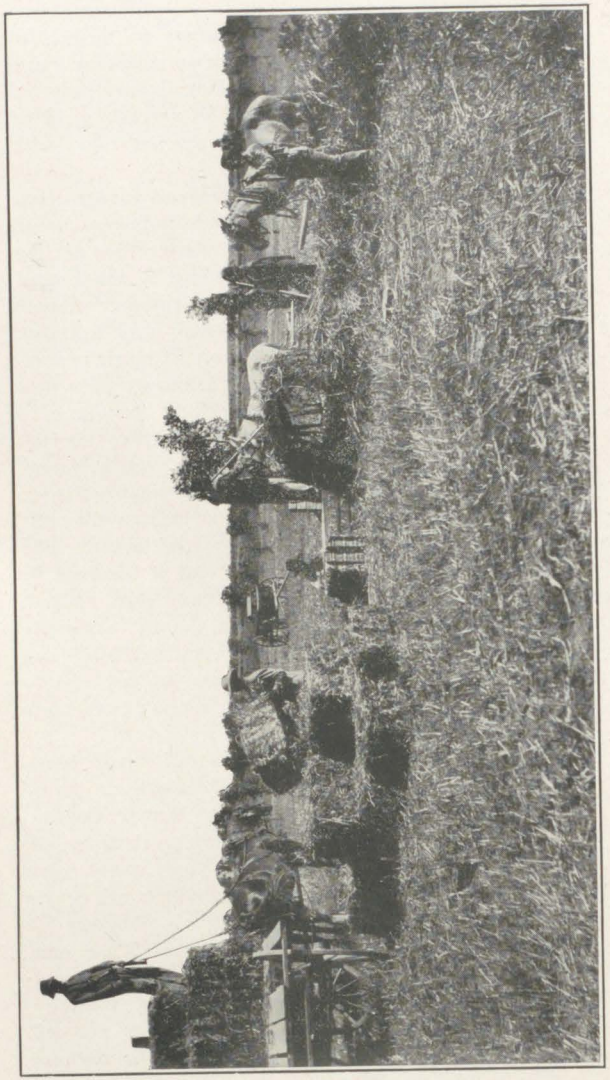
A large variety of products follows from the great variety of its soil. It is one of the largest wheat raising counties in the State, and some years it produces more of this cereal than any other county in Texas. An ordinary crop of wheat in Denton County is 1,5000,000 bushels, and it raises more than 2,000,000 bushels of corn every year. The average yield of corn per acre is 40 bushels. It produces 1,000,0000 bushels of oats a year, besides considerable of such field crops as barley, sugar cane, which averages three tons to the acre; sorghum cane, from which it makes ordinarily 20,000 gallons of molasses; broom corn and

potatoes, which produce on an average 60 bushels to the acre. And above all this, so far as monetary value is concerned, it raises annually about 20,000 bales of cotton, worth nearly a million. The average yield of cotton in Denton County, including the poor land with the good, is a half bale to the acre.

The ease with which it grows corn and forage crops makes it inevitable that the live stock industry should be an important one. In 1899 the value of the live stock in Denton County, according to the United States census, was $1,978,767, and the amount received that year from the sale of live stock was $342,659. Since then this industry has become still more important, and there can be no doubt that the county's nearness to Fort Worth, where the big packing houses have recently been established, will give a further impetus to this industry, for with a market so close at home, cattle raising must become even more profitable than it has been. There are no ranches in Denton County; the land is too valuable for that, but the farmers who do not raise a few head of cattle and a hundred or so of hogs for market every year are rare, indeed. There is much fine stock in Denton County, especially horses. There are perhaps more standard bred and thoroughbred horses raised there than in any county in the State. Several racing establishments have their breeding farms in that county.

What some people are pleased to call small farming, but what others prefer to call intelligent farming, is practiced to a notable degree in Denton County. For instance, a great deal of fruit and truck is grown there, and much attention is given to poultry and dairy interests. The annual sales of dairy products are nearly $200,000, and of poultry products nearly $100,000.

Fruit growing is decreed by the soil. That part of it which is sandy is very like that of East Texas, where fruit-growing has become the chief industry, though, perhaps, it has not so much iron as the soil of East Texas. Just what the value of the orchard



MILLET.

products is at present, there is no way of knowing, for there has been so great an increase in the number of orchards since the Government's figures were compiled, that they afford nothing like a correct notion as to the extent of this industry. It is a safe estimate, however, to say that the value of the orchard products is at least $100,000 now. Peaches, apples, pears, apricots, plums and grapes are fruits grown there, besides, of course, watermelons.

The price of land varies greatly. Improved black waxy land can not be bought for less than $40 an acre, while improved sandy loam land sells from $15 to $35 an acre. Unimproved land may be bought at prices ranging from $5 to $15 an acre.

The population of Denton County is probably 40,000. The town of Denton, which is the county seat, has a population of about 6000. It is a prosperous town and has many of the modern improvements. Other towns in the county and their populations are: Pilot Point, 2500; Lewisville, 1200; Roanoke, 600; Krum, 300; Little Elm, 200; Aubrey, 900; Sanger, 600; Garza, 200, and Argyle, 150.

Collin County.

To the east of Denton County is Collin County, among the three or four richest agricultural counties of Texas, taking rank with Grayson, Lamar, Dallas and Ellis. It may be said to be in the very heart of the black prairie region of Texas. The Frisco System, passing from Sherman to Fort Worth, runs through the northeastern corner of it. Collin County has an area of 567,760 square acres, and not a foot of its soil is begging for a purchaser. As proof of the land's value, it may be said that the average size of Collin County's farms is only 77 acres, which, as farm areas go in Texas, is abnormally small; in fact, only six counties in the State have farms of such small average size. And of its 567,760 square acres, 509,419 acres

were in cultivation when the figures were last obtained. There are nearly 7000 farms in the county. The value of the farms and all improvements is about $17,000,000.

If these figures fail to impress one with the greatness of Collin County, it may be added that its soil produces nearly $8,000,000 of wealth every year.

To an eye amorous of pastoral scenes there is no prettier country than that of Collin County. For mile after mile it is almost as even as a table, with only here and there an indentation for the waterways that thread the county in every direction. It slopes on the whole to the southward, and there is nowhere a foot of waste land. This is the acme of the black land. There it is seen in its greatest beauty, and in its power. The East Fork of the Trinity River runs through it, and it has many tributaries that make waterways in lateral directions. In addition to these, there are a number of lakes in different parts of the county, but, for crop purposes, they are useless, for in the section of which Collin County is the center, drouths are rare exceptions. The soil is deep, heavy and tenacious. It is marvelously fecund, and not alone does it produce cotton with an abundance that makes the profit sure, but it yields grains, wheat, corn, oats and barley with prodigality. It is the center of the grain region of the State; so important, in fact, is grain growing as a department of agriculture, that the value of the annual corn crop is nearly equal to the value of the cotton crop, and they raise ordinarily 50,000 bales of cotton in Collin County. The latest reliable figures, those of the United States census for 1899, show that over 5,000,000 bushels of corn were raised in that county, which, grown on 123,705 acres, show an average production per acre of nearly 50 bushels all over the county. Its 49,786 bales of cotton in 1899 were produced on about 100,000 acres of land, and that was not a very good year for cotton.

Nor not alone in these products does it take high rank. In the same year it raised over 8000 bushels

of barley, 2,000,000 of oats, 1,500,000 bushels of wheat, together with rye, hundreds of tons of alfalfa, potatoes, sugar-cane, sorghum cane, broom corn, onions, which yield on an average 80 bushels to the acre, and an abundance of forage, besides a number of minor crops, to say nothing of the live stock, fruits and vegetables which got sustenance from the soil.

The live stock interest itself is an important one, or one ought to say, the fine stock interest, for there are no ranches in Collin County, and the stock raised are fed at least part of the time, and are graded cattle and hogs. The value of the live stock in Collin County is rarely less than $3,000,000, and they sell about $300,000 worth every year. The poultry and dairy products of the county bring a revenue of nearly $500,000 every year. These with fruits and vegetables constitute the chief sources of Collin County's income.

The fruit interest is not inconsiderable, though it has not that relative importance which makes it more noticeable in counties whose agricultural wealth is not so great. Peaches, especially, do well there, and among the best peach orchards in the State are in that county. Other fruits are grown, but not in such commercial quantities as to distinguish the county.

Improved land sells all the way from $40 to $100 an acre, and this is the only kind of land there is in Collin County.

The population of the county is probably 50,000. McKinney, the county seat, has a population of about 6000. Farmersville, whose population is about 3000, and Plano, whose population is about 2000.

Celina, Prosper, and Frisco are the principal towns on the Frisco System in this county.

Tarrant County.

Fort Worth, in Tarrant County, is the gateway to the Brownwood country.

When one speaks of Tarrant County one always thinks of Fort Worth, for the wealth and the resources of Tarrant County's soil are eclipsed by the might and increasing glories of the Panther City.

Fort Worth is the center of the universe, so they say in Fort Worth. Whether that statement is true or not, it has no great significance; but what is of immense significance is Fort Worth's geographical position. It is the center of the great Southwest with its more than 5,000,000 people. It is by all natural laws the trade center of a territory greater in extent than the States of Ohio, Indiana, Illinois, Wisconsin, Michigan, Missouri, Iowa and Minnesota. And this is a territory which of all in the United States offers the best opportunities for development, and where inevitably the forces of development must converge for the next fifty years.

The map is a prophecy of its future. To the northward lie Oklahoma and the Indian Territory, a section capable of supporting in comfort all of their own population and that of Texas as well. To the northwestward is the Panhandle, an empire in its own right, one whose possibilities are just coming into recognition. Farther to the south are New Mexico and the famed Pecos Valley, and directly west of it is that immense stretch of country extending to El Paso. To the southwestward is the Brownwood country, the statement of whose resources sounds like an extravaganza.

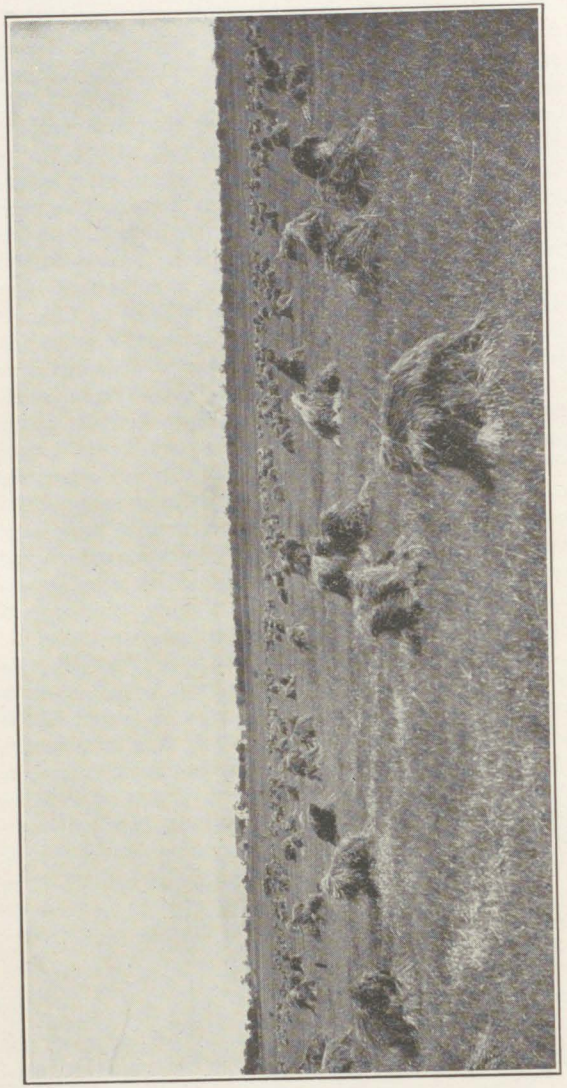
In this immense stretch of territory, making almost half of a circle, Fort Worth is the dominant urban force, while it enjoys the rights of competition in all the territory to the east and south of it.

To grasp the full meaning of Fort Worth and comprehend the reasons why it must of a certainty become one of the big cities of the Southwest, if not its metropolis, one must know something of the marvelous fertility and wonderful possibilities of that section of whose trade it has advantages that amount almost to a monopoly. Then one will be able to yield credence to the map's prophecy.

But there is no need of this tax on one's credulity. Fort Worth's present is a guarantee of its future. If it had nothing else its eleven systems of railroads, giving its commerce highways in sixteen directions, would assure its rank as a mart. It is undeniably the railroad center of Texas, and of the Southwest, indeed, if we exclude Kansas City from that division. These railroads give it four direct lines to Chicago, four to St. Louis, two to Memphis and New Orleans, four to Galveston, one of the fastest growing ports in America, and four to the West. These roads traverse the wheat fields, the cattle ranges, the cotton patches and the corn belt, not alone of Texas, but of the whole Southwest. Nor is this the only advantage to Fort Worth from these great railway systems, for most of them have their division termini there, and at least four of them have their immense machine and repair shops located in that city, giving employment to thousands of men and distributing millions of dollars in Fort Worth in the course of a year.

Of scarcely secondary importance in Fort Worth's economy are the two big packing houses recently erected there by Armour & Company and Swift & Company of Chicago. They are only now getting into operation, so that these are factors which have not as yet entered into the development of that city. They have already given it a great impetus, but it is only the impetus—the momentum has not yet been attained. These immense plants recently established there have a combined capacity of 1000 beeves and 2500 hogs daily, and they will employ 4000 to 5000 men constantly.

The redounding profit which Fort Worth will receive from these industries is that they will add millions of dollars to the value of the live stock of Texas and the Southwest, and thus increase the pros-



WHEAT FIELD IN NORTHERN TEXAS.

perity of a section of which Fort Worth is the trade center.

Perhaps next in importance in an industrial way are its four big flour mills, whose combined capacity is 2000 barrels of flour a day. All of these mills do a large business, and one of them has a big export trade. It is no unusual sight to see a trainload of flour, mostly the product of Texas wheat, leaving that city for Galveston, where it is loaded on ships for Europe.

Fort Worth must inevitably become one of the most important, if not, in fact, the most important flour milling center in the Southwest, for the reason that it is in a commanding position for the export trade, with abundant railroad facilities to reach the gulf ports, and for the additional reason that at its door, in the Panhandle, can be grown almost enough wheat to feed the United States, and in this section, it may be added, as a fact of no little significance, that the acreage in wheat is constantly being increased. As a point for concentrating wheat and distributing the flour, no place in this section of the country can rival Fort Worth. That city expects to be not only the Chicago of the Southwest with respect to the live stock industry, but the Minneapolis of the Southwest with respect to the flour milling industry.

Among the other industrial establishments of Fort Worth is one of the largest breweries in the South and probably the largest in Texas. There are also in that city two furniture factories, two foundries and machine shops, a brass foundry, a fence factory, a candy and cracker factory, a trunk factory, five ice factories, a book bindery and innumerable smaller factories.

Commercially Fort Worth is no less well equipped. It has six national banks with a combined capital and surplus of $2,000,000, together with several private institutions. It has a number of wholesale houses of all kinds, and they do an immense business.

But when all of this is considered, perhaps Fort Worth's greatest asset is its public spirit and acquisitiveness. When there is anything to be got Fort Worth goes after it. This is the way it got its packing houses, and this is the way it got most of its railroads in the early days of the city. It is a firm believer in the maxim that "God helps them who help themselves," and what is better, it practices its own precept.

It is a city of 40,000 people that firmly expects to double its population within ten years. It is well built; it has the most costly public buildings of any city in Texas. Its Union Station is one of the most magnificent in the South, if not quite so. It has the most costly Court House of any county in the United States, together with a City Hall that would be a credit to a city of more than twice its size. Its municipal affairs are well conducted. It has provided itself with a water system that will suffice when it shall have 250,000 people. It is proud of its achievements and confident of its future. It has the aggressiveness and the determination that make great cities.

If there were no Fort Worth, Tarrant County would be famous for the productiveness of its farms. There are over 4000 of them, and land is becoming so valuable that the size of them is being reduced constantly. Not many years ago a farm of less than 100 acres would have been a rarity and one of 20 acres a freak. Now there are more than 1000 of less than 100 acres and at least 250 of under 20 acres. Yet there is as much agricultural prosperity in Tarrant County as there was when the ordinary farm was of 200 acres. Indeed, there is more; for with the reduction in the size of the farms there has come a change in the methods of farming. Diversification is a fact, and large urban populations have made a market for the truck-grower, the dairyman and the fruit-grower that they have not been slow to take advantage of. Tarrant County raises about 2,000,000 bushels of corn, nearly three-

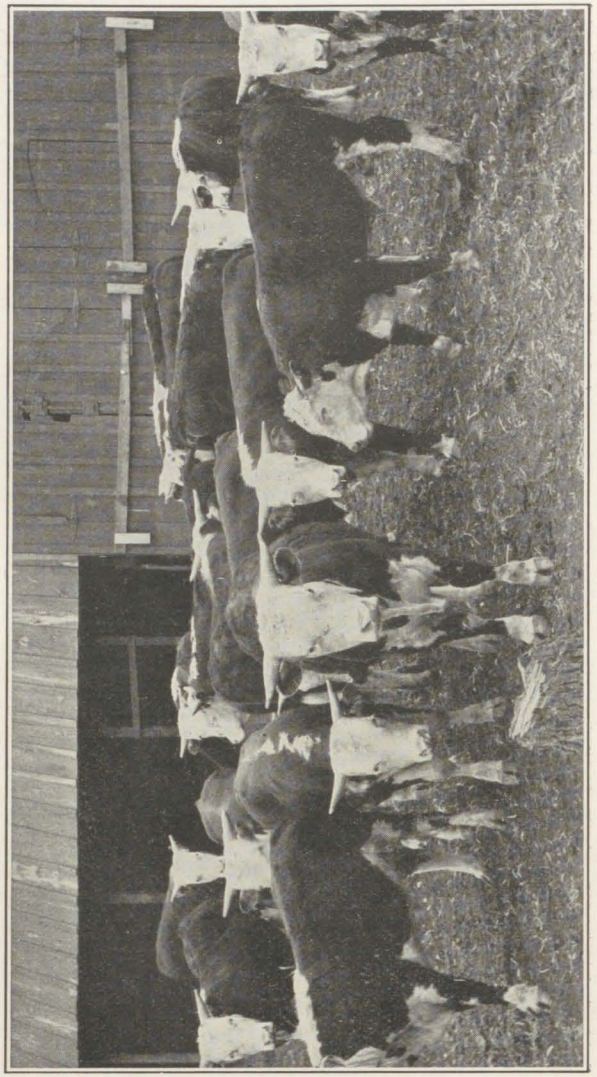
fourths of a million bushels of oats, 1,000,000 bushels of wheat and 20,000 bales of cotton, while the value of its fruit, vegetables and dairy products annually is in excess of $150,000.

Johnson County.

Johnson County is one of the least populated of the black land counties. It is estimated that not more than three-fifths of the tillable land is in cultivation. The population of the county is only about 25,000, and of these fully one-half live in the towns, whereas the county is capable of sustaining a rural population of 25,000 itself. The annual products of the soil are worth from $3,500,000 to $4,000,000, which shows a per capita production, with relation to the farming class, of more than $350. With such a capacity for wealth producing, no county could be poor. The annual wealth production, indeed, is nearly 50 per cent of the estimated value of farm property, including improvements.

Johnson County adjoins Tarrant County to the southeast. One passes through the northwest corner of Johnson County in leaving Fort Worth on the Frisco System. It is what may be called the North Central division of Texas. Most of its soil is of the black waxy variety, from which fact it derives its claim to be called one of the counties of the black prairie region. But there is a large part of its soil that is not of that black waxy variety. This kind of soil is on the prairies, and only a little more than half of the county's area is prairie land. The rest is timbered with post oak and blackjack, and here the soil is sandy, but is scarcely less fertile than the black waxy, though the kind of crops grown most successfully in the one does not correspond exactly with the kind grown in the other.

In the black waxy land they grow cotton, corn and oats prodigiously, while wheat rarely fails to give a fair profit. The yield of cotton per acre runs from a



HEREFORDS.

half to a bale to the acre, the difference being due more to cultural methods than to any difference in the productivity of the soil. Corn runs from 25 to 50 bushels to the acre, the difference being likewise due in large measure to the difference in cultural methods. Oats have been known to yield 120 bushels to the acre, while an average yield is not often less than 70 bushels. The yield of wheat ranges from 20 to 30 bushels to the acre. Barley and rye and an abundance of forage crops are also grown. As a hay producing county, Johnson is in the front rank.

The sandy loam of Johnson County, as in every other county in Texas, offers a wider range of opportunities than the black land. Not only do they grow all the crops of the black land here, except cotton, but with a smaller yield per acre, but they produce fruits and vegetables with such a profit that a great many farmers have made these their principal crops, raising feed and forage crops mostly for their own use.

The annual production of corn in Johnson County is about 2,000,000 bushels; of oats, 1,000,000 bushels; of wheat, 50,000 bushels, while the average cotton crop of the county is 30,000 bales. There is also a great deal of sugar cane grown, broom corn and sorghum cane, while potatoes yield never less than 50 bushels to the acre.

It has been estimated that Johnson County can support a population of 50,000, and if so populated, the agricultural wealth produced each year would be represented by $15,000,000, or $300 per capita.

Cleburne is the principal town in the county. It has a population estimated to be between 10,000 and 12,000. It is an important railroad point, as two divisions of the Gulf, Colorado and Santa Fe converge there, and that railroad has in that city immense machine and repair shops that give employment to hundreds of men, in addition to the many train operatives who have their homes there. Another railroad is now being built from that city.

Other towns in the county and their populations are: Alvarado, 2500; Grandview, 400; Burleson, 300, and Joshua, 300.

Dallas County.

Dallas County, through the northwest corner of which the Frisco System passes, is the most populous county in Texas, and, if taxable values be taken as the criterion, it is the wealthiest. The assessed value of all its property is close to $40,000,000, and of this amount, nearly, if not quite half, is in farm value. Its soil is of remarkable fertility, and the annual production of wealth is nearly 40 per cent of the value of its farm property.

Is in the north part of Texas, being one of the third tier of counties from the Red River. It has 576,000 square acres, and none of its surface is waste land. It is mostly an open, undulating country, with here and there stretches of timber along the streams. The chief of these streams is the Trinity River, which flows through it from the northwest to the southeast corner with numerous tributaries that make its water supply ample. It is also in the artesian water belt, and there are a number of flowing wells in the county. The soil is mostly of the black waxy variety, though in the cross timbers there is a sandy loam very productive of fruits and vegetables, for which purpose it is mostly used.

Notwithstanding its capital, Dallas, is perhaps the metropolis of the State, sharing that distinction, if at all, with Houston in the south part of the State, Dallas is distinguished as an agricultural county. Its annual production of agricultural products is immense, for nearly all of its land is in cultivation. There are about 5000 farms in the county, and the average size of them is about 90 acres, evidence that its land is valuable. The man who owns 90 acres of Dallas County farming land takes an optimistic view of life—regards himself as removed from the caprices of fortune.

It grows never fewer than 40,000 bales of cotton on about 100,000 acres, showing an average yield of almost half a bale to the acre, while there are farms, not noted for extraordinary fertility, on which a bale to the acre is made ordinarily. The disparity in production in these instances is due more to the man than to the soil, for the cultural methods of some are better than the cultural methods of others, just as in every division men do the same things with varying degrees of efficiency.

In grains Dallas County produces just as abundantly. The annual crop of corn is from 3,500,000 to 4,000,000 bushels; of oats, about 1,500,000 bushels, and of wheat, about 1,000,000 bushels, while as minor crops it grows about 20,000 bushels of barley annually, some rye and an immense amount of hay and forage, mostly alfalfa, which grows luxuriantly in Dallas County.

There is a great deal of fine stock in the county, but this as an industry is an adjunct of farming, for there are no ranches in Dallas County for the exclusive raising of live stock. As is nearly always the case when stock are raised this way, the value is more in the quality than in the numbers. The average value of the live stock in Dallas County is approximately $3,000,000, while the annual sales of stock average $500,000.

Dallas County farmers also give some attention to poultry and dairy products, more, indeed, than do the farmers of most Texas counties. For in 1899, of the 4900 farms in the county, over 3600 reported the sale of dairy and poultry products. Of the first there was sold nearly $500,000 worth, and of poultry more than $100,000 worth.

Among the vegetables potatoes is the largest crop in value. Of these Dallas County produces more than 50,000 bushels annually. All other vegetables possible of growth in Texas are also produced in Dallas County, and they prove to be a profitable crop, for the city of

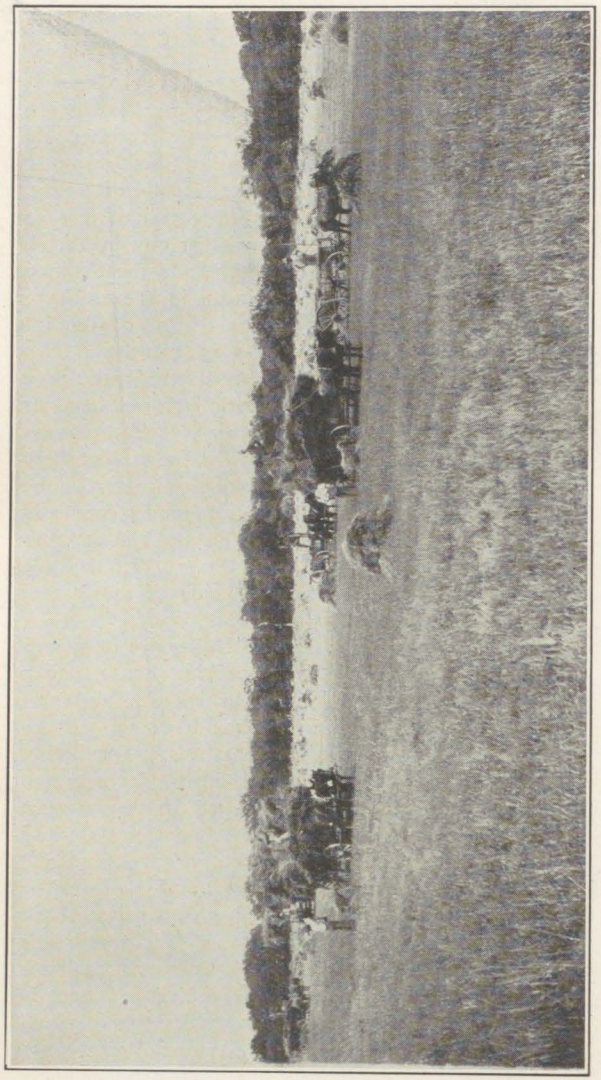
COTTON.

Dallas affords a demand at home which the farmers supply at a minimum of expense.

The value of Dallas County's orchard products is about $75,000 annually. These include peaches, apples, plums, cherries, apricots and grapes. Peaches do especially well in some parts of Dallas County.

Dallas is not only perhaps the metropolis of Texas, but it is incomparably the most metropolitan city of Texas. It is better built than any other city in Texas. It is the financial center of the State, and most of the foreign corporations doing business in Texas have their State headquarters in Dallas. Most of the insurance companies doing business in the State have their general agencies in Dallas. Dallas' wholesale trade is immense, and its market is not restricted to Texas, for its goods go into Arkansas, parts of Louisiana, New Mexico, and all parts of the Indian Territory and Oklahoma. It is the largest jobbing center in the State. In the sale of agricultural implements and vehicles, it is not only first in Texas, but at least second, if not first in the United States. In the sale of saddlery and harness, it is also one of the largest markets in the United States.

The manufacturing industries of Dallas are numerous and important. It has a large packing house, which has been developed from small beginnings, and also another packing house, which, though not so old or as large as the one mentioned first, is, nevertheless, a flourishing institution. There is also a large cotton mill, a cotton gin factory, the largest in the country, cement works, iron foundries, a candy factory, a piano factory, a brewery, a furniture factory, an extract and baking powder factory and a large number of smaller institutions. It has four national banks, a private bank and a State bank and trust company. Eight railroads enter Dallas. The population of Dallas is probably 60,000, including that of Oak Cliff, which has recently been annexed. It is a city of magnificent homes and has all the conveniences of a city twice its size.



TEXAS—WHERE FARMING PAYS.

THE PANHANDLE COUNTRY

ONE of the great divisions of Texas is the Panhandle, a section larger than most States in the Union. It is the largest division of Texas, whether the division be on the basis of soil, of climate or of geography. The divisional names employed in Texas are somewhat empirical, for they are based on no scientific reasons; for instance, much of that section to which the ordinary Texan refers as West Texas, is, with reference to the longitude of the State, in East Texas, and, likewise, many of the counties that are generally referred to as in South Texas are nearer the northern border than they are to the southern border of the State. This is, perhaps, one of the inevitable consequences of the immense areas to which Texans are accustomed.

The same vagueness attaches to the term Panhandle, as it is used by Texans. Some when using the word mean all that section north and west of two lines drawn at right angles through Fort Worth, which would include all of the Llano Estacado, an immense semi-arid section mostly given over to stock-raising. Others in referring to that section mean what geologists call the Seymour Plateau, and this includes not more than 25 counties with Baylor County somewhat east of its center.

There is need for some sub-division of the Panhandle, because, while the whole northwestern section of the State is in many respects homogeneous, there is a vast difference in the climate, in the soil and in the products between the Seymour Plateau and those of that section which is more properly the Llano Estacado.

Giving the word Panhandle this restricted meaning subtracts from its area, but adds much to its productive capacity as a whole; for within these limits are the Wichita, Red River and Pease River Valleys, whose

soil for the crops that are cultivated there is as fertile as any in the State, whereas the Panhandle in the larger meaning is mostly a stock-raising country.

The Panhandle is a vast prairie, sloping gently toward the south. It is not a treeless desert, as some of us have been taught to believe. There is not much timber; most of the trees are mesquite, cottonwood, elm, willow and hackberry, and they are confined mostly to the streams. Fully three-fourths of the soil is suitable for agriculture, and the rest affords excellent pasturage. It is not many years since the Panhandle was purely a stock-raising country, but now it has been transformed into a stock-farming country, and for this purpose it is not excelled by any part of the United States. While it is not, strictly speaking, semi-arid, as the annual rainfall there is about as heavy as in most other sections of the country, it does not fall at intervals regular enough to make the seasons dependable. Yet, there is compensation for this in the character of its soil. This is what is locally known as the chocolate loam, a kind of sand mixed with clay. It is very porous, and rain percolates through it to the clay subsoil, which holds it as if in a reservoir, and this moisture, by proper cultural methods, may be stored and distributed gradually through the process of capillary attraction, so that it is an unusual drouth that robs the soil of all its moisture. It took the farmers a long time to learn the imperative necessity of thorough cultivation. Only now are they beginning to appreciate that they have a generally effective means of combating drouth, and as a result crops in the Panhandle are more uniform and bigger than they were before the farmers learned that the methods in vogue in the black lands would not do in the Panhandle.

The Panhandle in many parts of it may be irrigated easily. Already there is an immense irrigation dam in Wichita County, which is a part of the Panhandle, and the result has been such as to evoke from com-

petent authorities the statement that the soil of the Panhandle is as fertile as any in Colorado, and that if irrigated, as it is in Colorado, the Panhandle of Texas will become no less productive than the valleys of the Centennial State.

The Panhandle has advanced wonderfully within the last five years. This has been due to a number of causes, the most potent being the discovery that its soil is remarkably productive under proper cultural methods, and a cause of scarcely less importance has been the discovery of the value of milo maize and Kaffir corn as forage crops, which, owing to their drouth-resisting qualities, may be grown abundantly in the Panhandle. This has given a great impetus to stock-farming, for the farmers have learned that Indian and Kaffir corn and milo maize fed to graded stock are among the most profitable crops grown. The establishment of packing houses at Fort Worth has also given great impetus to stock-farming in the Panhandle, for heretofore the distance to market has been so great as to make the freight charge a great tax on the industry. But now not only has this been changed by the building of the packing houses at Fort Worth, but the building of lines of the Frisco System into Vernon and Quanah, the first in Wilbarger and the second in Hardeman County, has given the producers a short line to the Kansas City market, so that whereas before they had no convenient market, they now have two.

Wilbarger County.

The two counties which the Frisco System touches are two of the four chief counties of the Panhandle. In 1880 Wilbarger County had a population of only 126; in 1890, its population, according to the United States census, was 7902, and it is believed its population now is between 10,000 and 12,000. Its area is 419,680 square acres, three-fourths of which area is susceptible to cultivation. Its soil is of a dark sandy

loam, and it yields corn, oats, Kaffir corn and milo maize profitably, even when sold in the market, but when sold as beef, it is twice as profitable. Cotton is also grown in the county. That cotton could be grown there was not thought possible a few years ago, yet, according to the United States census, about 1000 bales were produced in Wilbarger County in 1899, and the acreage has been increased every year since then, so that the production is twice, if not three times as large now as it was then. As to the grain crops it produces, besides corn, milo maize, Kaffir corn and oats, wheat and barley and rye, all of which cereals yield well. A great deal of sorghum cane and some broom corn are also grown in Wilbarger County.

As to vegetables, its soil is especially well adapted to the growing of potatoes. They yield on an average 70 bushels to the acre, and they are of a quality that makes them rivals of the Colorado potato, which is popularly supposed to be the standard of excellence. The potato grows best in a dry, loose soil and such are the characteristics of the Wilbarger County soil. The acreage in potatoes has been increased largely of late and results have been such as to warrant the farmers to devote more attention to potato growing every year.

Wilbarger County is also winning distinction for the excellence of its cantaloupes. For a long time the Rocky Ford melon had a monopoly of the market. They were regarded as the best, and the supply was only a fraction of the demand. It was Wilbarger County which showed first that a melon equal to the Rocky Ford could be grown outside of Colorado. Someone has said that a Wilbarger County man went in disguise to Colorado and stole one seed, from which grew the cantaloupe industry of Wilbarger County. This may not be literally true, but it is certain that melon-growing was begun in Wilbarger County with not much faith in the result, and that no one was more surprised when the Vernon, as the new melon was called, commanded the same price in the market

and was in just as strong demand as the Rocky Ford melon. Since then the Vernon has had not only a ready sale, but the growers have never supplied the demand, although the acreage has been increased many fold.

The soil of Wilbarger County and of that immediate section is almost identical with that of Colorado, and the fruits that grow best in Colorado may be grown as well in Wilbarger County when irrigation shall come into vogue, as assuredly it will.

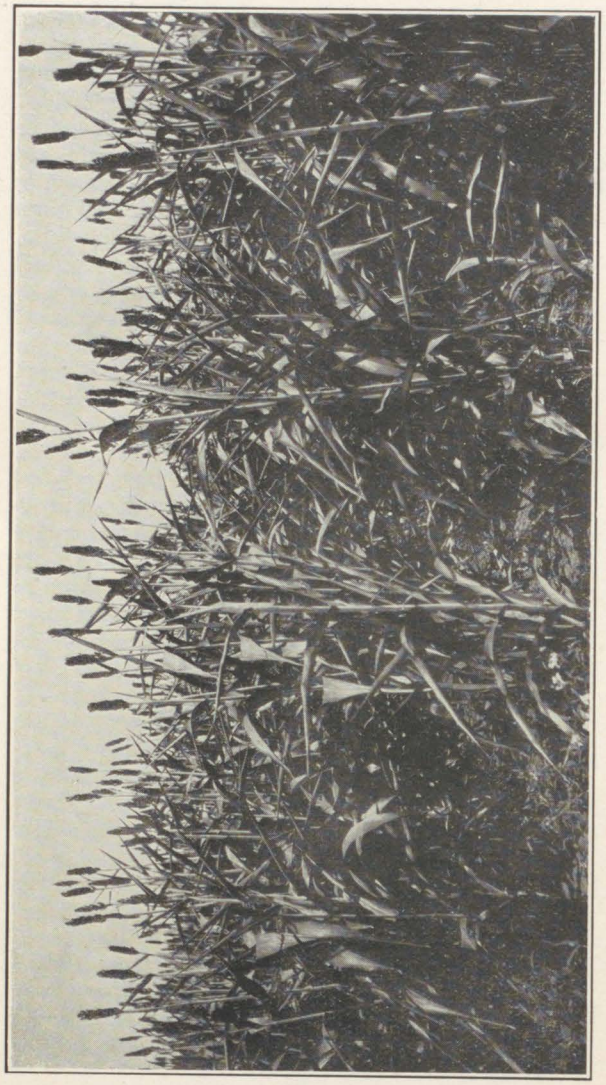
The live stock interest is, of course, the predominant one in Wilbarger, and, for the reasons given, it is destined to become even of greater relative importance. Yet there is a change being wrought. The herds are not so large, but there are more of them, and the quality is immeasurably better. This follows from the introduction of graded cattle, which has been going on for the last few years in all that section.

The assertion has been made that fruits may be grown in that country with no less profit than in other sections of the State where the orchard has become one of the greatest sources of income. This is not a demonstrated fact, though there is no reason to believe that certain kinds of fruits, such as the apple, may not be grown profitably. There are a number of young orchards in the county, and they give every promise of bearing profitably.

The principal town in the county is Vernon, which is also the county seat. It has a population of between 2500 and 3000. It has quite a large wholesale trade. It has two railroads, one of which is the Blackwell, Enid, Okeene and Vernon division of the Frisco System.

Hardeman County.

Hardeman County, which is touched by another of the Frisco System's lines, adjoins Wilbarger County on the north. Its population has grown from 50 in 1880 to about 5000 at the present time. It is larger than Wilbarger County, having 755,200 square acres,



MILO MAIZE.

not more than one-half of which are in farms, and not more than one-fifth of which are in cultivation. Its soil is in every respect like that of Wilbarger County, and the same products which Wilbarger County has, Hardeman County has, also. Corn in Hardeman County yields on an average about 25 bushels to the acre, and there are some farmers who make 35 and 40 bushels, because they have come to learn that a peculiarity of the soil is that it requires frequent and thorough cultivation. The same is true of wheat and oats and all the other kinds of crops grown in Hardeman County. The farmers who lack the energy to cultivate properly complain that it is a dry country, while the farmer next door who has the energy to cultivate properly, has no reason to complain and finds it a very good country to live in.

There are no fruits grown in Hardeman County aside from melons. Both cantaloupes and watermelons do well there, and a great many are shipped out every year. The soil is especially good for the production of a first-class quality of potatoes, and the yield is on an average 80 bushels to the acre. Sweet potatoes yield even more. Two acres in onions yielded 90 bushels. This was an experiment, which it is needless to say has been made a practice now. They are just beginning to discover what the soil is good for in Hardeman County, and when they shall have learned the lesson thoroughly, Hardeman County is bound to grow rapidly, for there is much room for industrious farmers, and they are assured of a good profit both on their labor and on their investment. The last named will not necessarily be large, for land is cheap. There is some improved land in the county that can not be bought for less than $75 per acre, which is mentioned to show what land may be made worth in that county by intelligent cultivation. As a rule, cultivated land may be bought from $5 to $15 an acre, and unimproved land from $3 to $10 an acre. About the same prices obtain in Wilbarger County.

FRISCO

For detailed information in regard to the location, character, and price of lands, address

S. A. HUGHES,
General Immigration Agent, Frisco System,
St. Louis, Mo.

Information as to rates, train service, etc., will be cheerfully furnished by any of the following Frisco System

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H. H. Hunt.....Trav. Pass. Agt.

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F. B. Gilmer.....Dist. Pass. Agt.

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CORRECT MAP OF A PORTION OF THE

STATE OF TEXAS

TRIBUTARY TO THE

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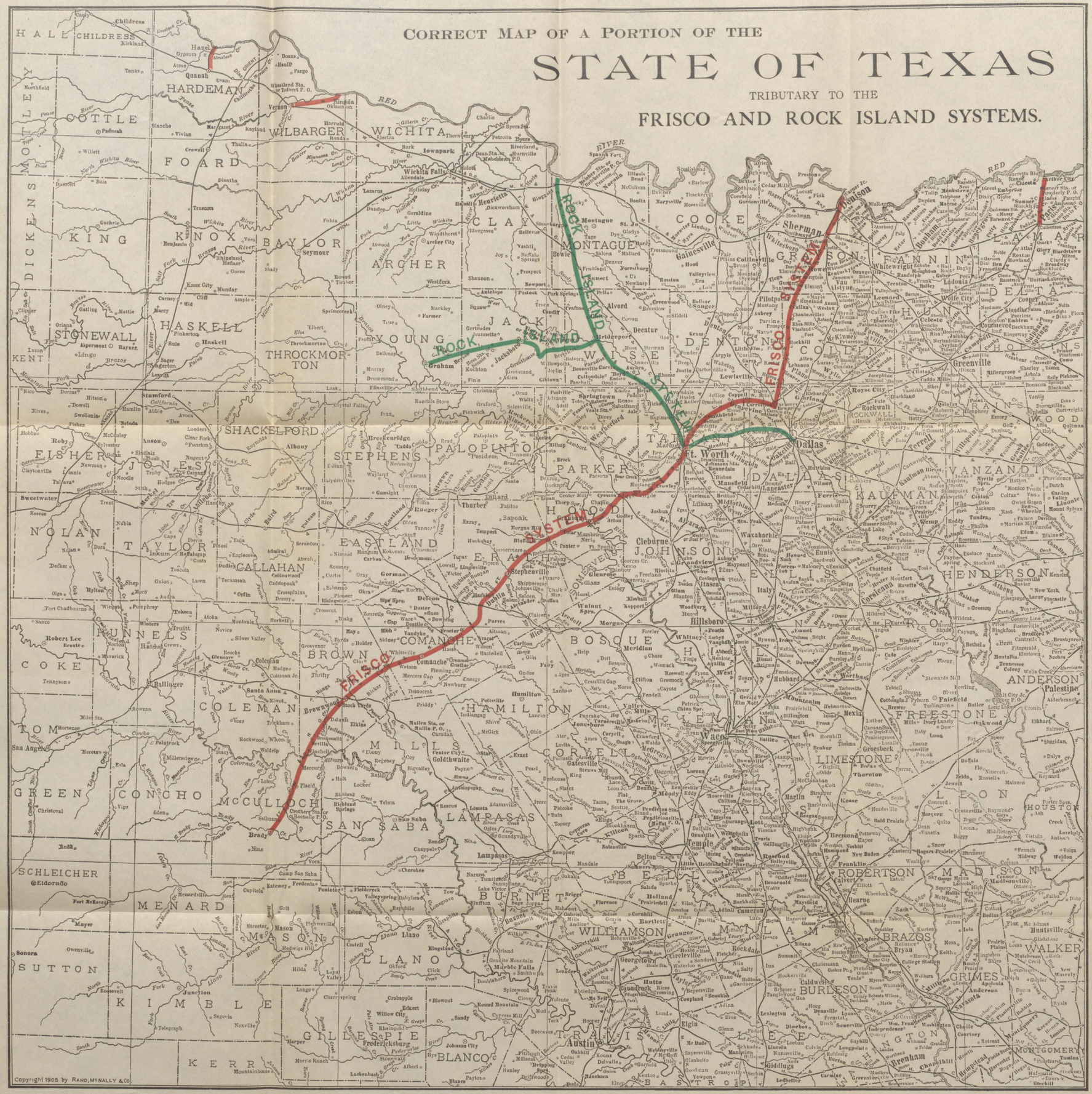

FRISCO SYSTEM - - - - ——— ROCK ISLAND SYSTEM - - -