The Fertile Lands of Colorado & Northern New Mexico

A CONCISE DESCRIPTION of the Vast Area of Agricultural Horticultural and Grazing Lands located on the line of The Denver and Rio Grande Railroad in the State of Colorado and the Territory of New Mexico

Full Information for Intending Settlers as to Lands Now Open for Entry, or Offered for Sale, and as to the Present Day Opportunities in Fruit Growing, Market Gardening, Stock Raising, Sugar Beets and General Farming

Compiled by C. A. Lyman

Seventh Edition :: One Hundred & Thirtieth Thousand

Published under the auspices of the Passenger Department of The Denver & Rio Grande Railroad

Copyrighted 1906 by S. K. Hooper, Gen'l Pass'n Agent
A HERD OF THOROUGHBREDS IN A COLORADO VALLEY.
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Colorado and New Mexico towns and valleys particularly described in this book

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<td>White River Valley</td>
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ONE OF THE MOST HIGHLY DEVELOPED OF THE COLORADO FRUIT VALLEYS.

CANON CITY AND VICINITY.
Introduction

This book has been prepared with only two objects in view.

1. To so describe the opportunities in the valleys of Colorado and New Mexico for getting farm homes on which life is pleasant and profitable, as to attract to the state a desirable class of permanent settlers.

2. To help people who want to get farms in this region, find the surroundings of soil, climate, crops, etc., that best suit their wishes and circumstances.

The Denver & Rio Grande railroad, which publishes this book for gratuitous distribution, has no lands for sale and is especially interested in none of the locations herein particularly described. Every effort has been made to make the information presented exactly correct and reliable. If further information about any of these valleys is desired, it will be gladly furnished upon application to S. K. Hooper, general passenger and ticket agent, Denver, Colo.

THE ONLY SATISFACTORY WAY for a man who is thinking of locating in Colorado or New Mexico to find out all about it, is to COME AND SEE FOR HIMSELF. Railway rates from the East to Denver are not high, and a constant succession of special excursions brings a trip to Colorado within the reach of almost any land seeker. The Denver & Rio Grande railroad makes very low charges to genuine homeseekers traveling over its lines to agricultural valleys on trips of inspection. All the valleys described are reached over the lines of this road, with daily train service, modernly equipped, and the trains traverse the grandest scenery in the world.

Chapter I.

SUPREMACY OF COLORADO FARMS AND ORCHARDS.

There are two ways by which products of any section of the country can be measured against those of the rest of the world. One of these is the great national fairs or expositions, and the other is in the markets of the country.

Colorado as a Medal Getter.

Colorado has had three chances since agriculture and fruit growing have been well established, to measure her progress against that of the rest of the country. These were at the Chicago World's Fair in 1893, at the Louisiana Purchase Exposition at St. Louis in 1904, and at the Lewis & Clarke Exposition at Portland, Oregon, in the summer of 1905.

At the Chicago World's Fair in 1893, of 371 exhibits from the state of Colorado eighty-one special premiums were awarded, covering wheat, oats, rye, barley, potatoes, flax, seeds, flowers, grasses, wool, woods and soil. The wheat exhibit attracted wide attention and twenty-five awards were given to it alone—the largest number received by any one state of the Union.
At the St. Louis Fair of 1904 the triumph of Colorado was even more marked. Three grand prizes were given for exhibitions of the product of orchards and apiaries, and for fruits of various kinds there were nineteen gold medals and 282 other awards. Colorado took either first or second prize on every variety of fruit exhibited, and a greater proportion than any other state in the Union. In agriculture Colorado secured four of the grand prizes, one for grains, grasses and forage plants, one for vegetables, one for potatoes and one for general installation. Besides this, in this section were 84 gold medals and 282 silver and bronze medals. No other two states in the Union secured as many prizes in these classes as did Colorado.

At the Portland Fair, the rivalry was even keener than in the East. The Portland Fair was designed to bring forward the attractions of the great northwest, which is just being settled, and which bases its claims for attention upon the high quality of the product of its fields and orchards. Word had been sent out to the valleys of Idaho and of Oregon, of Washington and California, to send in their very best, and the collection in the show cases easily surpassed even the showing made at Chicago and St. Louis. The Colorado agricultural and horticultural exhibit was composed in part of the same exhibits sent to St. Louis, and in part of new additions from that season’s crops. As at St. Louis and Chicago, there was practically no competition in any class in which Colorado was an exhibitor, and this state carried off more than twice as many prizes as all its neighbors combined. The following table shows what the awards of prizes were in the agricultural and fruit sections, at the Portland Fair:

<table>
<thead>
<tr>
<th>STATES</th>
<th>Awards</th>
<th>Gold</th>
<th>Silver</th>
<th>Bronze</th>
<th>Honorable Mention</th>
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<td>25</td>
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<td>85</td>
<td>22</td>
<td>9</td>
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Triumphs of the Markets.

But the greatest test of any farming product is not in medals and diplomas, it is in dollars and cents. The fruits that year in and year out bring the highest prices give the grower the best rewards. By this test, Colorado products rank still higher than rated by the exposition judges.

Whether the crop of apples in the East or in California is large or small, every spring finds just as many apple buyers in the Colorado orchards, contracting when the trees are in bloom for the apples that are yet to grow.

Colorado apples travel through a thousand miles of apple country to top the market in Chicago. Colorado apples are the standard of high quality on the Pacific coast.

"Grand Junction" peaches, as Colorado peaches are generally called on the markets, are sought by Eastern connoisseurs so eagerly that sometimes they are hard for Denver people to get.

Colorado fat lambs are always at the top of the quotations at the Chicago stock yards. Colorado canteloupes are in so much a class by themselves that they might also be called a special variety of melons.

Colorado potatoes are the acme of quality from Utah to St. Louis and from El Paso to the Gulf of Mexico. High altitude potatoes, packed in boxes like apples, go east to delight the palates of millionaires for whom no price is too high if the quality is there.

Colorado beet growers get the highest prices paid in the world for their beets because they contain so much sugar.
These triumphs of quality are not due to anything that the growers can do. There were undoubtedly better horticulturists in the defeated classes at the fairs than those who grew the winning fruits in Colorado. Much more care is lavished on some Michigan orchards whose apples are salable only when Colorado’s are not to be had, than is given to the Colorado Jonathan tree. The superior quality is due to just two things—Colorado soil and climate.

Chapter II.
COLORADO SOIL AND CLIMATE.

Colorado is at the very summit of North America. From its craggy apex the rivers flow north, south, east and west. Five great river systems, the Colorado, the Rio Grande, the Arkansas, the South Platte and the North Platte draw the principal part of their flow from the melting snows on Colorado’s mountains.

Colorado is almost midway between the oceans. The clouds which rise from evaporation in the Pacific, the Atlantic, the Great Lakes or the Gulf of Mexico are largely dissipated before they get to Colorado. Only the highest peaks and bare ridges catch the clouds to extract their moisture to make them white mantles of snow. Being high in elevation, Colorado enjoys a cool climate. Being far from the sea, Colorado enjoys a cloudless climate. This means a great deal of sunshine, without burning heat. There are other arid regions, south of Colorado, but being lower down they are too hot to make the finest quality in fruit or vegetable. There are other high regions, further north, but they are so far north that the climate is too cool. The valleys of Colorado and northern New Mexico are located just right.

Colorado Soil.

All soil comes from the grinding up of rocks. The more recently the rocks were ground, the richer and better the soil. Dirt is like coffee in this regard. The soil in the Colorado valleys is only a few miles from the mountain sides from whose disintegration it came.

While the soil of all the humid regions of the world has for countless ages been raising a crop every year—if not a crop of wheat, a crop of weeds, or grass, or brush, or trees—this Colorado soil has been lying bare and brown and dusty. In the humid regions, the rains have been leaching through and through the soil, taking out the plant food and leaving only insoluble particles of rock. In Colorado, the soil is just as it was deposited by the great mills of the glaciers, ages and ages ago. Time has disintegrated it still further, but it has lost nothing of its richness.

A Recipe for Quality.

Now this is the recipe that makes the COLORADO QUALITY. (1) A rich soil, (2) constant sunshine, (3) cool air, (4) the system of irrigation, that brings water to the roots of plants, without shutting off the sunshine from the leaves.

QUALITY depends upon sunshine. Experimenters have grown beets and watermelons, giving each plant just so much sunshine, some more, some less. At the end of the season it has been found that the amount of sugar in each beet and in each melon was exactly dependent upon the amount of sunshine it has enjoyed.

QUALITY depends upon the mineral salts. They make the exquisite flavor of the Grand Junction peach or the Mancos Jonathan apple. They give Colorado potatoes the flavor which makes any other kind seem like watery masses in comparison.
QUALITY depends upon climate. The humid warmth of the hot-house never can produce such fruit as grows in the crisp, out-door orchards. The cool nights are what fill Colorado fruits with juices, make the apples crisp, the melons tender.

Colorado Climate for Men and Women.

Incidentally, the climate which is best for an apple and best for a peach is best for a human being. Just as Colorado sunshine dispels mildews and blights on trees and vegetables, so it disposes of those blights that prey upon humanity. Just as the cool air gives the peach flavor, it gives life flavor. The climate soothes, stimulates and energizes at once. Consumption, asthma, hay fever, malaria, ague and rheumatism are among the diseases that residence in Colorado dispels.

It is good for a sick man or woman to come to Colorado, but Colorado is not a sanitarium. Only a small proportion of those who come to the state annually come for their health. New strength and vigor, new courage and inspiration come with the cool, crisp air, with the endless sunshine, with the perennial blue of the sky, with the inspiring views of the mountains, with the open-air life. Colorado is a state where strong men are doing great things. Farm work is lighter, results are more certain, success is sure. Neither sunstroke in summer nor freezing cold in winter threatens the farmer's life. The spirit of progress, of getting better results out of life, is breathed in with the air of every one of the Fertile Valleys of Colorado.

In the mountains beyond are crystal clear, icy cold streams that teem with trout. On the broad shoulders of the great peaks are forests in which deer and elk, bears and mountain lions are roaming. At the heads of the valleys are mining camps where fortunes are made in a day. At the portals of the mountain passes stand great cities, full of monuments to private energy and public spirit. In every direction opportunities beckon to the youth of the land.

Chapter III.

IRRIGATION.

Irrigation is the connecting link between the dry, arid climate of Colorado and the inexhaustibly rich soil. By irrigation the streams which for ages have flowed through dry valleys toward the sea have been made to water the ground, and make the desert to blossom as the rose.
Colorado is the roof tree of the continent. The land slopes away in every direction. The valleys have a very heavy fall, often 20 or more feet to the mile. Water will flow readily on a slope of only a few inches to the mile. The builder of an irrigating ditch taps the stream a few miles above the land he wants to irrigate and leads his ditch or canal away from the stream at an angle. If the stream is falling at the rate of 20 feet to the mile, and the ditch is given a fall of two feet to the mile, each mile traversed will find the ditch 18 feet higher above the river. As it grows higher from the stream, the ditch gets further and further away. In ten miles, there may be a strip of land five miles wide, sloping from the ditch back to the river. If the canal is tapped the water can be led in laterals to the sides of fields, then down through furrows, or spread out in sheets over the crops.

A Colorado irrigator plans his work carefully, gets the water to the highest places of his farm to begin with, and then has easy down-hill work to get the fertilizing flow over every foot of it. The labor of irrigation is equal to about one-half the time the Eastern farmer loses by bad weather, and about one-fifth the hard work he puts in on muddy roads. Many men have learned to be skilled irrigators in less than a week. There are few that cannot master all the details of the science in a single season.

Canals and Water Rights.

Speaking in general, the majority of settlers coming to Colorado will have to buy their water rights, either from the government in the case of the Uncompahgre project, or from private ditch companies in most of the other valleys. The first settlers took advantage of most of the easy irrigation projects. The lands now offered for settlement are mostly lands in which serious engineering problems have been overcome to provide water. Ditches have been brought down canons on high flumes to
reach the heads of valleys, tunnels have been run to bring unused flows from streams where there was a surplus of water into valleys where water was scarce. Ditches have even crossed the Continental Divide in Colorado. Millions of dollars have been spent in the construction of reservoirs, in which the floods of June, when the snows melt fast on the high mountains, are stored to reinforce the scantier flows of the streams in July and August.

The man who buys farming or orchard land in Colorado pays mostly for his water right. In some cases, this water right takes the form of a contract by which the water company, in consideration of a payment down and of the payment of an annual maintenance charge, agrees to deliver an agreed amount of water annually during the irrigating season. In other cases, a water right consists in ditch stock, by buying which the settler acquires a proportionate right in a canal or ditch, with all its rights to the use of water, its canals, dams, reservoirs and laterals. In such case, when settlement is completed, the farmers own their own ditch and run it to suit themselves.

The appropriation of water from the streams of Colorado, the sale of water rights, the management of canals, the annual assessments and other details of irrigation have been carefully regulated by the laws of Colorado, so there is little danger of a stranger, even though ignorant of irrigation affairs, being deceived in what he is getting when he buys a water right.

**Advantages of Irrigation.**

Irrigation is not a mere expedient for getting the ground wet because it will not rain. Irrigation farming is an improvement in every way on farming by rainfall.

The farmer in a rainy country suffers fully as much because it rains too much at the wrong time, as he does because it does not rain when his crops need moisture. Rarely does the farmer want all his ground wet at the same time. Some crops thrive when moist, and some are spoiled by moisture.

In an irrigated country the farmer can always depend upon dry, sunny weather, and so he can regulate the exact degree of moisture exactly to suit any crop. The very color and texture of fruits and vegetables can be regulated by irrigation. The irrigation farmer can keep his crops growing until they have attained their maximum, then shut off the water and ripen them. He can make the wheat berries fill fuller by watering when the grain is "in milk." The Colorado onion grower keeps his bulbs growing until time to ripen, then dries them off into perfect keeping qualities. By keeping his potatoes always evenly moist, he makes them smooth and free from knobs and second growths. The yield of irrigated acres as compared with the yield of acres not irrigated is given as follows by the United States census of 1900:

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<th>Irrigated Lands</th>
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<td>Wheat, bushels</td>
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Chapter IV.
SPECIAL CROPS IN COLORADO—ALFALFA, FIELD PEAS, SUGAR BEETS.

With the single exception of corn, there is not a crop common to the temperate zone that cannot be raised in the Valleys of Colorado, of a quality better than that elsewhere. But there are certain crops that have been found so perfectly adapted to Colorado’s soil and climate that they almost might be claimed as exclusive Colorado products.

Alfalfa and field peas have a double importance to the state, for they not only afford profitable crops, upon which are based immense and rapidly increasing live stock interests, but they afford a safe, sure and inexpensive method of renewing the soil’s fertility.

Nitrogen is an element which every plant has to have, to grow well. Nitrogen does not come from the grinding up of rocks, and it is therefore the only essential of fertility which is not to be found in Colorado soil in inexhaustible quantities. More than half of the air we breathe is nitrogen, but in this form it is not available for plant growth. But by a peculiar partnership with certain bacteria, alfalfa and field peas possess the property of drawing nitrogen out of the air, not only enough for their own use but a surplus which is left in the ground for following crops. The Eastern farmer, when his crops languish, buys nitrates at a cost of $20 to $40 per ton, and spreads them on his fields, but the Colorado farmer has simply to put in a crop which is itself profitable, and reap the same benefits.

On the opposite page is a photograph of the root system of a field pea. The mass of roots, it will be seen, is mingled with little lumps or “nodules.” Each of these is a colony of bacteria, drawing nitrogen from the air. The alfalfa or pea roots run through the lumps and take out what nitrates are needed for the growing plant. When the crop is harvested, and the ground plowed, the nitrates are still there. Nitrogen in vegetables is what makes red blood in the men or the animals that eat them. The gluten of wheat, the protein of beans, the strength-giving qualities of cabbage and onions, and all other vegetables, are all forms of nitrogen.

The Benefits of “Alkali.”

And here Nature again supplements the advantages of Colorado with still another advantage. Nitrogen products tend to be acid. A field in the east that gets too rich in nitrogen gets sour. The farmer has to buy gypsum, or old plaster, or lime, or wood ashes, or some sort of alkali and sweeten his ground before he can raise a crop on it. But there are mountains of lime and gypsum at the head of almost every Colorado valley, and all the soil has fine particles of lime and gypsum through it. So no matter how rich the ground becomes, it is still sweet and alkaline. The alfalfa and peas bacteria, too, need an alkaline soil to develop their full strength.

The Alfalfa Bonanza.

Alfalfa, without any regard to what it does for the soil, is in itself a bonanza crop. It is a plant of the clover family, a perennial, which sends long, tapering roots ten to thirty feet into the ground. This immense root is supplemented by a mass of smaller rootlets, with attendant nitrogen nodules. With this great root system, the plant grows at the rate of more than an inch a day. Three and four crops of hay are harvested every season.

Alfalfa while growing is the deepest, living green that ever beautified a landscape. When ready to cut, an alfalfa field is a sea of fragrant purple blossoms, making the finest bee pasture and honey known. Alfalfa hay is rich green in color, sweet in taste. It is the staff of life in a Colorado barn-
yard. Horses work on it without grain, dairy cows give their richest milk, cattle and sheep fatten with only a little corn, even pigs eat the dry hay readily and can be pastured all summer in a field.

For chickens, finely ground alfalfa meal is sold at high prices in the east as an egg-compelling nostrum. Chemical analysis shows alfalfa to contain almost exactly twice the digestible elements that a ton of the best timothy hay contains. Alfalfa is so rich that it cannot be cured except in a dry climate. In the east the hay musts and spoils in the dampness.

**Field Peas.**

Alfalfa will grow as high as 8,000 feet, but not readily above 7,000 feet. At the higher levels, up to 10,000 feet, however, the Colorado farmer has the field pea. If an Iowa farmer were shown a patch of Colorado field peas, he would not believe that it was the same crop he raises at home. In Iowa, and in Canada, where the field pea originated, the peas are planted in early spring. The vines grow two or three feet high and set on a few pods. Then the blistering hot weather comes, the pea vines turn yellow and die, and unless the crop is harvested early in July the peas will fall to the ground and the weevils will get them. In the high valleys of Colorado, the peas keep right on growing all summer. There are no blights to destroy the leaves and stems, no weevils to attack the peas. The pods keep green and hold the peas all summer. By fall, the vines are five to ten feet long, with a pair of pods at each joint and half a dozen peas in each pod. Then the farmer can turn in lambs and fatten them, or he can turn in hogs and fatten them and make the finest mutton or the finest pork at just about half what it costs to fatten mutton or pork in the corn belt, and the growing of the peas and feeding them will leave his soil very much richer than before the crop was raised.

**Sugar Beets.**

All the sugar in a beet comes from the sun that shines on the leaves. It is the sun, which, by some mysterious chemical action, changes the starch in the juices into sugar. The sugar is taken up from the soil in connection with certain mineral salts. Colorado soil is rich in these salts, so plenty of starch is made in the roots. The leaves are bathed in sunshine all day, so the starch is converted into sugar. This is why the sugar beet is a different plant in Colorado. Every year the average sugar content of the beets raised for the factories of the state is increased, and at the same time the average tonnage per acre is increased.
Chapter V.

THE LIVE STOCK INDUSTRY, FOREST RESERVES AND PUBLIC
PASTURES OF COLORADO.

Of the total area of the state of Colorado about one-fifth is capable of
cultivation. The balance is destined to remain always a range for cattle,
horses and sheep. A large part of this range area is included in the moun-
tains. The steep slopes of the hills in summer time are carpeted with tender
grass, often two feet high, and of the most nutritious quality. Great stretches
of grassy meadows alternate with the forests of the plateau regions. The
lower hills, where the grass starts sooner, but where there is not so much
moisture as higher up, afford an abundant spring and fall pasture. Even in
the valleys, where the ground is not used for irrigation, grass grows, which
though very short and stiff, is so rich in nutritive qualities that cattle fatten
where an Eastern man might think there was nothing for them to eat.

Controlling the Public Range.

This great grassed region of Colorado has remained the property of the
general government, for the most part, and in the mountains it has been
largely gathered into forest reserves. There is hardly a high, mountainous
region of the state which is not now marked on the government maps with the
green color which indicates the timber reserves. These areas are under the
direct control of the agricultural department, which keeps forest wardens
constantly patrolling them, to prevent fires, to stop the wanton waste of tim-
ber, to protect the fish and game, to guard the streams from pollution, and to
regulate the pasturing of stock.

It is the purpose of the government that equal rights shall be given to
all actual settlers in the state to range their cattle or other stock on these re-
serves. A small fee per head is charged, and for some time this feature of
the forestry policy was the cause of a great deal of opposition and agitation
on the part of cattlemen who had for years enjoyed the free use of the ranges
without any cost. Experience has shown, however, that the government con-
trol is worth all it costs. Since the government has administered the reserves
the old abuses, by which large companies in other states would send immense
bands of cattle or sheep into Colorado to eat off the ranges to the exclusion
of the local cattlemen, have disappeared. No overstocking of the range is
permitted, and the use is given first to those farmers who live nearest. The
small farmer with half a dozen cattle has just as good rights as the man with
five hundred or a thousand, and he has the assurance that there is always
feed enough for his stock, through the summer season.

Winter Feed and Summer Range.

The value of the public range to Colorado farmers is almost inestimable.
Every year some half a million cattle are shipped from the state, some of
them to Eastern feed lots and some "finished" to go directly on the markets.
The farmer whose lands lie in any of the valleys adjoining the forest re-
serves, raises alfalfa hay during the summer, and in the fall brings his herds
down from the mountains, ships those which are ready to be made into beef,
keeps the cows and young stock on the hay through the winter and in the
spring turns them out again, in fine condition. By this careful method of
winter feeding, and by close attention to breeding, Colorado cattle have been
built up from the Texas scrubs, which almost perished every winter, into the
finest kind of beef stock. The scourge of cattle tuberculosis, which is so costly
to Eastern cattlemen, is totally absent in Colorado.

In some of the older sections of the state, remote from the ranges, farm-
ers are beginning to learn that it pays to keep cattle on the farm the year
around. They are fed on hay in the spring and summer, clean up the stubble fields and potato tops in the fall, and in winter, with a diet of beet pulp, alfalfa and corn, are finished into beef, which brings fancy prices.

**Sheep Growing and Feeding.**

Sheep growing is also of increasing importance in Colorado. Sheep will flourish on ranges which are worthless for cattle. Nimbler and lighter on their feet, they are ranged on the highest pastures, far above timber line, where the grass is tender and almost sugary sweet. The time was when there was bitter and bloody feuds between cattlemen and sheep men, but it is now recognized that each animal has its place. Cattlemen and sheep men now meet in amity, and in fact many of the cattlemen have also bands of sheep of their own. Colorado produced $5,000,000 worth of sheep and wool in 1905.

The sheep feeding industry flourishes in Colorado wherever there is a beet factory, or where alfalfa is grown, and also in the field-pea districts of the San Luis Valley, the Wet Mountain Valley and the upper Arkansas Valley. This business has many variations.

The old ewes, whose teeth have been worn down to the gums by cropping the close grass on the flinty soil of the mountains, are put in pens and fed beet pulp. This pulp is what is left of the beet after the sugar has been washed out. It is very soft and watery, and though almost tasteless, contains a large percentage of nutritious qualities. With a little alfalfa and corn, the ewes fatten into very tender, juicy mutton. The pulp is sold by the sugar factories to the men who raise the beets, and costs them 25 to 35 cents a ton. By getting the pulp, feeding cattle, sheep or lambs and putting the manure back in the soil, the farmer can raise continuous crops of beets without taking any fertility from his farm.

Alfalfa and corn-fed lambs from Colorado are eagerly sought in the Eastern markets. Alfalfa makes almost a complete ration for feeding, so that the lambs need barely a few handfuls of piece of corn every day in order to fatten. The corn is brought in from the corn belt of Nebraska or Kansas, the railways making low rates. Field-pea fed lambs are simply turned into the fields, after the peas have ripened. They eat the vines for roughage, and the peas for grain, and finish for the market sooner by a month than the lambs that are fed upon alfalfa, corn or pulp.

**Colorado Hog Growing.**

The growing of hogs in Colorado is a business which is just beginning to assume importance. Alfalfa makes almost a perfect ration for growing pigs, either as pasture in the summer time, or as hay. Careful experiments have shown that the Colorado farmer can raise barley for fattening his hogs as cheaply as the Eastern farmer can raise corn. The cool, summer climate tends to prevent cholera and kindred diseases and the open winter climate makes it easier to care for hogs.

In the field pea region it has been found that hogs fatten as readily upon the peas as do lambs, with more profit to the farmer. The pea-fed hogs bring from 15 to 25 cents per hundred more than the corn-fed hogs, both on the Denver market and in the East. The reason for this is that the pea-fed hog, eating food that is more nitrogenous and less starchy, has redder lean meat, firmer fat and makes the finest grade of bacon.

**The Growing Packing Interest.**

The packing industry of Colorado, based upon the growth of the live stock interest, has increased a hundred-fold in the last few years. The great houses of Chicago have made Denver one of their leading outposts. More than a million dollars has been invested in packing houses in Denver and it is announced that the size and capacity of the plants are to be doubled. The
packing interest at Pueblo has also greatly increased. These Colorado markets generally pay the local producer as much as he would get for his cattle, sheep or hogs if he took them to the Missouri river, and thus save him a considerable freight charge.

Chapter VI.

THE HOME MARKETS—TRANSPORTATION.

It is only a few years since agriculture in Colorado was only an offshoot of the great gold and silver, lead and copper, coal and iron mining and smelting industries of the state. Though Colorado farms have come to the front, the other industries have been advancing with equal rapidity.

At the head of almost every one of the Fertile Valleys of Colorado and New Mexico there is a great mining camp. Where the valleys unite, there are smelters and manufactories. A fourth of the state is underlaid with coal, and there are many miles of coke ovens, which supply not only the smelters and steel works of Colorado but those of neighboring states and territories as well. An immense lumbering interest has its centers in the forested slopes of the Continental Divide.

Colorado is becoming the "National Playground," to use the words of President Roosevelt. The magnificent climate of the state, both in summer and winter, the matchless scenery of the peaks and canons, the healing qualities of the air, the virtues of the myriad mineral springs which gush from the mountain sides, the beauty of the cities, the great game preserves, the trout streams and camping grounds—all these are bringing to the state a constant stream of health and pleasure seekers. The hotels and cottages of the many resorts demand the best, and furnish markets for the produce of with its smelters, its hundreds of manufactories, iron works and railway thousands of acres of farms and orchards.

Added to this is the demand from the great cities of the state, Denver with its hundreds of manufactories, wholesale houses, railway shops, its great packing plants, its thousands of men working in offices; Pueblo with its steel works, smelters and other metal industries; the oil industry at Florence, the gold mills of Colorado Springs, the many railway division points, each having hundreds of railway men and their families, and the quarries of marble and granite and sandstone that line the foothills and canons. The neighboring states and territories too are calling upon Colorado for fruits and vegetables, which this state either produces better than they can, or which they do not produce at all. Every one of these industries—tourist, mining, coal, coke, iron, lumber, railways, packing plants and manufactories—is increasing in strength and demand every year. There is a limit to the irrigable land in Colorado, but there is apparently no limit to the other resources of the state.

Transportation.

The fertile valleys of Colorado and northern New Mexico are especially favored in having a complete transportation system. The Denver & Rio Grande railroad is the pioneer of Colorado. Its engineers followed close upon the heels of the first prospectors and settlers. Its lines pushed themselves over lofty ranges, when there was little but hope on the other side. Its trains have opened up for settlement great valleys which otherwise would still be the roaming grounds of Indians. Wherever there is anything worth while in Colorado, the Denver & Rio Grande system reaches it, whether it be a mining camp, a coal bed, a lumbering point or a fertile valley. Its lines alone almost make a complete map of the productive portion of Colorado.

From east to west of Colorado the lines of the Denver & Rio Grande railway form a link in the most direct as well as most beautiful route be-
between the oceans. At Denver and Pueblo it has direct connections to all parts of the east and southeast. To the south, it sends a branch to railway connections at Santa Fe. To the southwest, it sends a branch into the beautiful Farmington-Azetc fruit country. Between these lines it makes a network of railways, traversing all the valleys, climbing all the ranges, reaching all the mining camps and resorts. Splendidly equipped, furnishing fast service for both freight and passenger business, with rates calculated for the up-building of the sections traversed, the "Scenic Line of the World" has been almost as much of a factor in the prosperity of the valleys of Colorado and New Mexico as have the soil and the climate.

Chapter VII.

ALONG THE EASTERN SLOPE—DENVER AND VICINITY—CASTLE ROCK—THE DIVIDE SECTION—COLORADO SPRINGS—THE FOUNTAIN VALLEY—PUEBLO AND VICINITY.

The eastern slope of Colorado, the high plains lying close to the mountains, was the first section of the state to be highly developed, and still leads in many lines of agriculture and fruit growing.

CASTLEWOOD DAM AND LAKE STORAGE RESERVOIR.

Leaving Denver, the metropolis of the west, the Denver & Rio Grande trains run for miles through farms and orchards. This farming section, one of the oldest settled in the state, covers the valleys of the Platte river, Cherry Creek and Plum Creek. Fruits and vegetables, eggs and poultry, dairy products, alfalfa and grain are produced to supply an insistent home market in Denver.

This home market is causing a constant increase in the area of land offered for settlement, both by the irrigation of new tracts, and by the division into smaller farms of large ranches. Fifteen miles south of Denver, the road crosses the High Line Canal, which covers some 50,000 acres of land close to Denver. The construction of an immense reservoir on the Platte river will in the next few years make all the land under this canal suitable for intensive farming.
Littletown—Castlewood Reservoir.

Ten miles south of Denver is the thriving town of Littletown, the center of a prosperous farming community, and which is becoming a manufacturing section as well. Five miles east of Littletown, off the line of the railway but still within easy hauling distance, begin the lands under irrigation from Castlewood reservoir. These lands lie parallel with the line of the railroad for twenty miles, and are being rapidly settled up. Sedalia is the center of stock-growing and farming country, in which a great many orchards have been coming into bearing in the last few years with such good results that many more trees are being planted.

Douglas County.

Castle Rock, 35 miles south of Denver, is the metropolis of Douglas county. With three well watered valleys, a large area of first-class grazing lands, a rich soil and a desirable climate, this section is rapidly settling. New irrigation enterprises are destined to open much new land to more intensive farming. Being well up the slope of the Arkansas-Platte divide, Douglas county enjoys rather more summer rain than most of Colorado, which makes green pastures and so makes the grazing interest paramount. Large quantities of milk and cream are shipped to Denver creameries, and the dairy industry is increasing.

The Divide Plateau.

The Divide is the name generally applied to a plateau which lies almost on the summit of the raise of ground between the Arkansas and Platte rivers. On this plateau, where the rains are frequent enough for farming without irrigation, a large population is supported by farming, cattle raising and dairying. One of the products of the Divide region is seed potatoes. There is something about the climate and soil which gives potato seed grown in this section a peculiar vitality. Divide seed is used all the way from Montana to Texas, the varieties grown being principally Mammoth Pearl and Early Ohio, on which the farmers realize from 50 to 100 per cent. above market prices. Greenland and Monument, stations on the Denver & Rio Grande railroad are among the principal outlets for this seed potato traffic.

Valley of Fountain Creek.

From Palmer Lake south, the train speeds down hill toward Colorado Springs. The valleys widen, and more and more evidence of irrigation and high cultivation appear from the car window. Between Colorado Springs, which is the great resort city of Colorado, and Pueblo, which is the great steel manufacturing point, the valley of Fountain Creek widens into a vast expanse of fertile farms, orchards and hayfields, dotted with buildings and lofty stacks of alfalfa. The favorable climate, the nearness to the home markets afforded by Colorado Springs, Pueblo and Cripple Creek and the richness of the soil are leading to the elaborate development of this section. A tract of about 10,000 acres lying south and west of Colorado Springs, on the bench above the valley, has recently been irrigated by a ditch and reservoir system and is attracting settlers. Other reservoir projects in preparation promise to make the whole stretch of level country for ten miles each side of the track of high productive value.

The town of Fountain, fourteen miles below Colorado Springs, is now the agricultural center of the Fountain Valley. The hay industry is one of the greatest in this part of the state. The tourist and livery barns at Colorado Springs and Manitou, and the immense hauling concerns which bring the gold ores from the mines to the railroads at Cripple Creek—which lies just over the mountains from Colorado Springs—all furnish an unlimited market for hay at high prices. Immense stretches of country are one
THE FERTILE LANDS OF COLORADO.

sweep of the vivid green of alfalfa in the summer time. Enormous stacks of alfalfa dot the landscape. In other meadows blue-stem or wild hay is grown by irrigation. All around Fountain are farms and orchards, producing tree and small fruits, vegetables, eggs and poultry to supply the always eager markets north and south.

A new and what promises to be a most profitable industry of this valley, is the poultry business. Already there are four of the largest poultry yards in the state in the vicinity of Fountain, and their product finds ready market at fancy prices in the near-by resorts.

**The Pueblo District.**

The agricultural district surrounding Pueblo is one of the most important in the state. Pueblo is a great manufacturing, smelting and railroad center and therefore is a great market for all kinds of farm products. The city has approximately 55,000 population and growing rapidly, so that farming in its tributary territory will inevitably increase in profitableness.

The most important agricultural district close to Pueblo lies on the south side of the river for about twenty miles and extends from the city limits down the river to Boone. This district is watered by the Bessemer ditch and still has about 15,000 acres of land available for settlement, with good water rights included, from $50.00 to $150.00 per acre. A large portion of this tract is in truck gardens, supplying the city with fresh vegetables. On the north side of the river, parallel, is an equally rich belt, watered by the Orchard Grove, the Booth and Excelsior ditches. Back from the farming lands on both sides of the river is a great cattle range, which supplements in a large degree the products of the farmers of the valley.

On both sides of the river, in fact all the way to the Kansas line, the land is of exceptional fertility, the climate mild and equable, with over 300 days of sunshine. Truck gardening, poultry, honey, sugar beets, apples and peaches, pears, prunes, plums, potatoes, cantaloupes, Mexican beans, oats, wheat, corn, rye, barley, and dairy farming represent the many occupations of this valley.

**The Huerfano Valley.**

Southeast of the city lies the beautiful valley of the Huerfano river, which rises in the Rocky Mountains southwest of the city. The waters from this river irrigate a valley two to five miles wide and some seventy-five miles long, ending at its upper end in the famous Wet Mountain Valley. The lands in this valley are somewhat cheaper than along the Arkansas, but equally productive, ranging in price from $15.00 to $75.00 per acre for improved farms and $2.50 for vacant land. Plenty of grazing land adjacent, and in its upper source is plenty of timber for fuel and other uses. A large reservoir project, now under construction, will put under cultivation for sale to settlers, more than 25,000 acres of land in this valley.

West of Pueblo lies the beautiful valley of Beulah, watered by the St. Charles river, with its fine farms and ranches, its canons, magnificent scenery and its pure air. This valley lying along the base of the Greenhorn Range is Pueblo's summer resort and is much frequented by the business men of the city. In this valley are excellent opportunities in farming, dairying, orchards, and truck gardening. When the town of Beulah is connected with Pueblo by rail the price of lands in the valley will greatly increase. The fertility of the soil of this valley is attested by the fact that the first prize on wheat at the World's Fair in St. Louis was given to wheat raised in this valley.

South of the Beulah district lies the town of Rye, a prosperous farming community some fifteen miles west of the Trinidad branch of the D. & R. G. railroad. Situated at the base of the southern spur of the
Greenhorn Range, with good irrigation facilities this district is particularly attractive both as a health resort and as a farming community. A sanitarium for invalids requiring a warm, equable, invigorating climate is maintained here. Farm lands with water in this district are low considering their productiveness, and will beyond doubt go higher, the price being from $50.00 to $100.00 per acre for lands with first class water rights, and lower for land with less valuable water suitable for stock raising. A great deal of government land lies in the section south of the city which can be brought into profitable cultivation. Durum wheat is successfully raised here on the uplands without irrigation.

The Rocky Ford District.

Farther down the river is the Rocky Ford district, famous for its canteloupes, garden seeds and sugar beets, and Sugar City and Ordway districts all under practically the same conditions of climate, soil and water as the Pueblo district.

The profits in the great valley of the Arkansas of which the sections above described are portions, are almost incredible could they not be verified. Land under irrigation is immensely productive and admits of intensive cultivation so systematically that the results obtained are little short of marvelous. At the same time failure in crops is only a remote possibility.

I. Newton Saltor raised 3,300 boxes of apples in 1905, on twelve acres which he sold at $1.25 per box, the crop paying for the place.

Daniel A. McCarthy sold over 4,000 boxes of apples at a dollar a box, in 1905, which grew on thirteen acres.

J. C. Plymell sold $1,050 worth of alfalfa on twenty-six acres. Alfalfa goes about four tons to the acre and sells from $6.00 to $10.00 per ton.

Emil Klaus, twelve miles south of Pueblo, received $1,000 per acre on sugar beets and paid for his land with two crops. Sugar beets sell for $5.00 per ton on board cars, the price being the same at all railroad stations.

John Fee raised 2,000 pounds per acre Mexican beans, which sold at three cents per pound, usually.

A well known Pueblo business man cleared $30,000 in twenty years at dairy farming and is now one of Pueblo’s wealthy men.

John Collins of Boone raised 400 turkeys with practically no expense, which he sold at $1.50 to $2.00 apiece.

A. W. Webster made $25,000 by dairy farming near Pueblo in fourteen years.

In the Pueblo district canteloupes pay $200.00 to $250.00 per acre, strawberries $300.00 to $400.00 per acre, sugar beets from $100.00 to $150.00 per acre.

These results can be obtained on lands adjacent to a large city with first-class markets, a climate unexcelled in the world, with good country roads, fine schools, churches, telephone connections and all the other advantages of a highly civilized community. The air both summer and winter is clear and dry. The winters are short so that farm work can continue throughout almost the entire year.

Trinidad and Vicinity.

Almost due south from Pueblo, near the southern boundary of the state, is the city of Trinidad. Trinidad is the metropolis of the great southern Colorado coal district. Four railways center therein, and it has increasing manufacturing interests.

There are 45,000 acres of land now under cultivation in Las Animas county, of which Trinidad is the center. This area will soon be largely increased, through private enterprise and possibly by the government reclamation service. Trinidad is 6,000 feet in elevation, which gives it cool
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summers, while it is far enough south to escape very severe winter weather. The climate and soil are suitable for all kinds of farming and some fruit growing, but the principal crop at present is alfalfa. The alfalfa fields are supplemented by an immense area of grazing lands, the live-stock population of the county including 160,000 sheep, 40,000 cattle and 25,000 goats. The cultivation of grain and beans is receiving much attention from the farmers, and the success attained in producing sugar beets of high saccharine contents indicates the establishment of a sugar factory in this vicinity, although there is none at present.

Chapter VIII.

THE UPPER ARKANSAS VALLEY—CANON CITY AND FLORENCE—SALIDA AND BUENA VISTA—THE WET MOUNTAIN VALLEY.

Canon City, located at the mouth of the Royal Gorge, 40 miles up the Arkansas river from Pueblo, has for twenty-five years led the eastern slope of Colorado in fruit growing and gardening.

A CANON CITY FRUIT GROWER'S HOME.

This valley enjoys a peculiarly favorable climate, even for Colorado. Walled in to the north, west and south by solid ranges of granite, through which the Arkansas river penetrates only by a mere knife cut of a gorge, it is sheltered from all severe weather. Close to the mountains, it enjoys cool summers. The first apple orchard in the state was planted here, and from the time these first trees came into bearing, the area of orchards has steadily increased until Canon City has become one of the great apple markets of the state. There is a large production also of other fruits, peaches, grapes, cherries, pears and small fruits.
About Canon City, the small farms predominate. Here one may find families living not only in comfort, but in positive luxury, upon the returns from 5 to 10 acre farms. The great mining camps of Leadville, Cripple Creek and Victor are never failing markets for the strawberries and raspberries, the currants and tomatoes, the sweet corn and other vegetables from these gardens.

Canon City has very mild winters, lawns frequently keeping bright green the year round. This feature of the climate has led to the extensive growing of early spring vegetables. Lettuce, onions, spinach and other hardy vegetables are put in the open ground in August and September. They grow up before cold weather and in December are frozen down to the ground, but in February and March they are again growing and in April are ready for the mountain markets—where anything green is a luxury. Another unusual crop is autumn strawberries. By the proper manipulation of irrigation, strawberry beds are made to blossom and fruit a second time, producing about Sept. 20. One gardener in a single year sold $142 worth of berries from a patch which had already given a large spring yield.

The total amount of land under irrigation about Canon City is about 10,000 acres, which area is watered by eight canals. As these take the water from the Arkansas river and tributary streams close to the mountains, they carry a large amount of silt which distributed in a fine layer over the fields, accounts in large part for their increasing productiveness. Recent construction of reservoirs and ditches, together with the division of larger farms into small tracts has opened a considerable area of land about Canon City for new settlers.

Some Show Places.

One of the show places of Canon City is the orchard of Capt. B. F. Rockafellow, one of the pioneer horticulturists of Colorado. His orchard covers 72 acres, with 12,000 trees and 15,000 vines. His last crop was about 10,000 barrels of apples, 9,000 quarts of cherries, besides grapes, pears and other fruits. The shipments of apples from Canon City in the season of 1905 totalled a value of about $400,000, which alone means a return of above $40 an acre for every acre under cultivation in the vicinity. The full average return an acre, including fruits, vegetables, etc., is above $75 an acre. Another of the places pointed out to visitors is one which a woman, Miss Brocaw, bought for $1,000, consisting of two acres, set with fruit. The first year she marketed more than $1,200 worth of fruit from the place, thus paying for it the first year out of the crops.

Besides its agricultural prosperity, Canon City has since the first settlement of Colorado been a health and pleasure resort. It has a remarkably favorable climate for those invalids who need to spend much of their time out of doors. The scenery presents many points that are world-famous, including the Royal Gorge of the Arkansas river, just above the town. There are also mineral springs, warm and cold, of proven medicinal virtue. Canon City is also a commercial and manufacturing point of increasing importance. It has lime quarries, coal mines, cement works, flouring mills, brick works, and several mills and smelters for the reduction of ore.

Florence and Vicinity.

Equal to Canon City in commercial importance is the thriving city of Florence, situated eight miles east. Between the two cities the country is practically one continuous garden and orchard. Florence, besides being surrounded by trees and gardens, shows a landscape dotted with towering derricks, for it is the center of the oil industry in the West. Acres which on the surface produce abundantly of every good thing, yield a second crop of petroleum from far beneath the surface. There are oil refineries at Flor-
ence which handle not only the petroleum produced from the local wells, but oil brought in tank cars from all the other districts of Colorado. Florence, besides the kerosene business, has also a large smelting and ore milling industry. It has direct rail connection to the great gold camp of Cripple Creek, and its cyanide and chlorination mills send to the mints every year millions of dollars worth of gold ingots. The town is well built and prosperous, and its varied industries afford a good home market for the adjoining farms. Florence has good schools, churches, large commercial houses and practically all the advantages of a city, besides being rated one of the most progressive and enterprising communities in the West.

**Wet Mountain Valley.**

The Wet Mountain Valley, situated in Custer and Fremont counties, Colorado, almost directly south of Canon City, ranks foremost among the many fertile mountain valleys of the state. Extending for thirty miles in a nearly north and south direction between the Sangre de Cristo range on the west and the Wet Mountain on the east, with an average width of seven miles of arable land, it combines all the advantages of climate, soil, etc., and is the home of a populous and prosperous agricultural community. The mean altitude of the valley proper is about seven thousand five hundred feet. It is drained by Grape and Texas Creeks, both of which streams flow toward the northeast into the Arkansas river, and is abundantly watered by numerous tributaries, which come down from natural lakes high up in the Sangre de Cristo mountains. For miles the valley presents an almost level appearance, with just sufficient slope toward the north and east to facilitate irrigation.

Wet Mountain Valley hay and potatoes were famous throughout Colorado twenty-five years ago, and have ever since maintained their reputation for a high standard of excellence. Nearly all kinds of cereals are successfully and profitably grown here, and the yield is not exceeded, nor the quality surpassed, in any other part of the state. The hardy vegetables, such as turnips, beets, carrots, cabbage, etc., attain a prolific growth. Alfalfa thrives, the seasons being long enough to produce two heavy crops. That fruit can be successfully raised in the northern end of the county is attested to by several thrifty young orchards just coming into bearing. The climate is all that could be desired, mild winters with but little snow; cloudless summer days and delightfully cool summer nights.

Stock-raising is another important branch of industry. The grassy slopes of the Wet Mountain range and the expansive rolling prairie lands on the eastern side of the valley afford excellent pasturage all the year round for large herds of cattle and horses. The towns of Westcliffe and Silver Cliff, situated one mile apart at about the longitudinal middle of the agricultural section, are the principal commercial centers of the valley. Westcliffe has a flour mill which produces a high grade of flour from the valley wheat and where thousands of bushels of other grain are ground into chop and feed.

The line of the Denver & Rio Grande railway into the Wet Mountain Valley leaves the main line in the Canon of the Arkansas river, 24 miles west of Canon City. The branch line makes a great loop around the mountain just above the track in the canon and then climbs up the canon of Texas Creek and over a low divide into the valley, making one of the most picturesque railway mountain rides in the state.

**The Upper Arkansas Valley.**

For fifty miles above Canon City and the Royal Gorge, the Arkansas river runs in an almost continuous canon, only winding out for a few small parks. But from two miles east of Salida, to five miles north of Buena Vista, a distance of nearly fifty miles, the valley averages six miles in width.
Although the soil is rich, and the slopes are suitable to irrigation, this valley has not received one-fifth the development which is possible. At present, however, there are several reservoirs planned which will greatly increase the arable area.

Salida and Buena Vista are the two principal towns. Salida is a railway division point, where the Rio Grande system branches, the main line running north to Leadville and Tennessee Pass, while branches extend south to the San Luis valley, and west over Marshall Pass to the great valleys of the Gunnison river.

Buena Vista, 25 miles north is the county seat of Chaffee county and is the center of a considerable agricultural district, besides mining, smelting and manufacturing. The altitude of this upper Arkansas Valley rises from 6,800 feet at its lower end to 7,697 feet at Buena Vista. Scenically it is one of the most picturesque valleys in the state. The great peaks of the Continental Divide are in plain sight to the west. South is the rugged Sangre de Cristo range, and east the rounder summits of the Mosquito range. Leadville, Colorado's first great silver and gold camp, and still one of the first in production, lies at the head of this valley, and affords a good local market. All grains grown elsewhere throughout the state are grown in this valley. Hay, including timothy, red-top and alfalfa, the latter cutting two and three crops of two to two and one-half tons from each acre, finds a ready market, bringing from $6—the minimum price—to $15 per ton. Oats, wheat, barley, rye, buckwheat and millet produce as many bushels to the acre as anywhere. All sorts of vegetables are grown, some of which attain phenomenal size. Experiments conducted during the past season has demonstrated conclusively that the entire valley is admirably adapted to the culture of sugar beets. An average production of 30 tons to the acre, testing 20 per cent. saccharine was recorded.

There is an unlimited and constantly growing market for the production of poultry farms. The production of eggs alone never supplies the demand. During the months of November and December eggs command the fancy price of fifty and sixty cents per dozen.

All of the different raspberries, blackberries, dewberries, currants, gooseberries—in fact, all small fruits of similar nature, are grown. Several small tracts near Buena Vista support large families and provide the necessary funds for the luxuries of life. These crops pay more when raised here, for the reason that the altitude being so high, raspberries and strawberries mature after the supply is exhausted in the lower altitudes, consequently command fancy prices.
There are many apple, crabapple and plum orchards scattered throughout the valley and all produce large crops, bringing not less than $3.00 per hundred, which price has gone as high as $5.00 per hundred in December and January. This is an industry that has been neglected, the general opinion having prevailed until recent years that apples could not be grown here to full maturity. An advantage not had in other valleys is the absence of borers, worms and all kindred orchard pests, making spraying unnecessary, and it is a fact that not a spraying outfit is to be found in the valley. The planting of apple trees is now being given more attention, and more new orchards were set out in 1905 than during all of the intervening time since the organization of the county.

The Colorado Rubber Plant.

The newly discovered rubber plant, the scientific name of which is "picrdenia florabunda utilis," abounds here in large quantities, and it was in Chaffee county it was discovered. Buena Vista enjoys the proud distinction of having the first works for the extraction of this valuable commodity from a heretofore worthless weed. The works of the American Production company, located in the northern end of the city, adjoining the tracks of the Denver & Rio Grande railway, handles twenty tons of the rubber root each twenty-four hours, the gathering of which employs a small army of pickers. Two cents per pound is the price paid for the root. Mountain, plain and valley is covered with the plant. That it can be made a profitable crop and be grown by irrigation and cultivation, which will also increase the rubber content, there is now no question. It requires three years to mature it, although it may be harvested the first season. It is started from seed, roots or cuttings, preferable from the seed. The first year it should be planted in rows far enough apart that two more rows can be added between; one the second year and another the third. While the second and third rows are being planted, cultivated and irrigated, the first planting is matured.

Nothing but the roots is used by the company here at present, although the entire plant will be utilized as soon as the necessary machinery can be perfected, as the tops and pulp contain just enough caoutchouc that a fine parchment paper, rivaling the finest banknote paper, can be made. Once started, the rubber crop will be continuous. When the plants are pulled from the rows many small roots and tendrils naturally remain in the ground, each one making an independent plant. This industry alone promises much in the near future.

Good ranches with water rights and improvements can be bought for from $25.00 to $200.00 per acre, according to age of ditch right and proximity to the town. Much good land is still open to homestead entry, but as water for irrigation is all appropriated and no reservoirs have yet been constructed, much is being entered at the land office, Leadville. The character of the land is a sandy loam and continuous crops without fertilization have been grown, in some instances, for upwards of thirty years. Other ranches have been systematically farmed and the soil replenished; on these places crops bordering on the phenomenal are grown, which is proof conclusive of the possibilities of the valley.

Chapter IX.

THE FERTILE SAN LUIS VALLEY.

When the historian of the half century hence writes the completed record of the Winning of the West, he will have no more interesting chapter in his records than the one which deals with the San Luis Valley. For fifty years this great, high plateau, which comprises almost the whole drainage area of the Rio Grande river in Colorado, has been the battleground of
pioneers. Little by little human perseverance and ingenuity has gained ground against what seemed to be great natural disadvantages. These very things which at first seemed to be disadvantages have been turned into advantages, until now the San Luis Valley has a permanent and increasing prosperity, solidly based on the production of staple articles of food.

The San Luis Valley was once a great fresh-water lake, extending more than one hundred miles north and south, and forty miles east and west, walled on every side by mountain ranges, except for a narrow gorge through which the water cut its way toward the south. There was great volcanic activity on the mountains on each side, and the rivers that flowed into the lake brought down many cubic miles of debris. The coarser material settled near the mouths of the rivers, but the finer particles covered the lake bottom nearer the center. Thus the lake gradually filled into an almost level plain. In the meantime the gorge which drained it gradually deepened, until the lake bottom was left dry, with half a dozen rivers flowing across it, not in valleys, but almost on top of the ground.

A Splendid Cool Climate.

This great area of fertile ground is blessed with a magnificent climate. The valley is high, lying at an elevation of from 7,500 to 8,000 feet above the sea. On the north, the northeast, the west, the east and the southwest are lofty ranges of mountains, which present an almost solid rock wall to shut off storms and blizzards.

In this cloudless atmosphere, the sun shines with a clearness and intensity of light unknown in a lower altitude, and this brilliant light stimulates a very rapid growth of crops. It is never sultry or oppressive in the San Luis Valley. Though the sun may be burning hot in the open air, it is always cool in the shade. Through the summer nights, when people in lower climes are suffocating in the sultry heat, the people in the San Luis Valley sleep under blankets. In the winter, though the air is cool, the valley is free from blizzards. The storm clouds, piled high above the mountains, often are the only evidence in the valley that less sheltered sections are getting a touch from old Boreas. Though there are brisk breezes at certain seasons of the year, there are never any wind-storms that do damage or make any risk to life or property. Such a thing as a cyclone is unknown. Damage from hail is unusual, the frozen particles generally being too soft to hurt crops. The roads are always good.

The principal crops raised in the San Luis Valley are field peas, hay, grain and potatoes. Based upon these crops is an immense live stock industry. Hundreds of thousands of fat lambs are shipped from the pea fields every winter. The hog industry is of growing importance and promises to eclipse even the famous corn belt of the Middle West. The ranges on the mountains on every side of the valley support herds of cattle, goats and sheep. The almost limitless stretches of hay meadows are the basis of a large horse raising business. Dairying, chicken raising and small farming operations maintain a partial supply to the mining camps and lumbering centers in the mountains.

The Field Pea.

The field pea, as it grows in the San Luis Valley, is different from the field pea as it grows anywhere else in the world. It might almost be a different vegetable. The reason for this difference lies in the difference in the climate.

The San Luis Valley is high, so it has a cool climate all summer. The San Luis Valley is far to the south, so it has warm sunshine and almost no cloudy weather at all, and the air is very dry. The San Luis Valley is sheltered from hard storms and blizzards by high mountain ranges, so that peas can be fed in the fields all winter.
The field pea grown in the San Luis Valley is a small, hard, round pea, similar to the Canada pea, grown extensively in the northern states and in Canada. It is not like the "cow pea," or "clay pea," or "whippoorwill pea," which are grown quite extensively in the South. These so-called peas are really a kind of bean, and are very tender. The field pea is a true pea, and is very hardy, standing quite severe frosts without injury. Field peas in the San Luis Valley are drilled in, or sown broadcast and plowed under, early in the spring. From 20 to 50 pounds of seed is used per acre. The peas sprout quickly and grow rapidly. The crop receives no cultivation, but is irrigated by flowing, just like grain, until the vines cover the ground, and then the farmer is through working his peas.

If planted in the East, or in a warmer climate, a crop of field peas would continue to grow and flourish just as long as cool spring weather prevailed, but the first warm days of summer would see the vines begin to turn yellow, the leaves to drop off, turn mouldy and discolor, and the pods shrivel up and drop the seeds. In the San Luis Valley, such warm days never come. All through the summer the air is cool and dry. The pea vines keep right on growing and growing and growing. The pods that set on early in the season continue green and hold their seeds, while the lengthening vines put on more and more pods. The vines roll over in masses on the ground. In a hotter, damper climate they would soon be ruined by blights and mildew, but in the San Luis Valley they continue clean and green. The first hard frosts in the fall kill the vines, and they ripen off their pods.

**Field Peas for Lambs.**

The enormous value of field peas lies in their feeding properties. An acre of peas will fatten more lambs than an acre of corn, with less than one-tenth of the labor. The lambs to be fattened are simply turned into the fields in the early winter. They eat the cured vines as hay, and eat the peas as grain. All the attendant has to do is to see that they eat up the feed clean as they go, see that they have water and keep dogs and coyotes away. In sixty to ninety days the lambs are finished, ready to go on the Eastern markets, where they get the highest prices paid.

The San Luis Valley feeder is sure always of having a market which will pay him at least a living profit. There is no other place in the world where there is just that peculiar combination of cool, dry air, open winters and sunny summers which enables the field pea to be raised and fed as it is in the San Luis Valley. So the growers have little to fear from direct competition. The valley, if all the available area were employed in pea growing, could not furnish half the fat lambs demanded by the markets of the country. The other half of the lambs will have to be furnished by the regions which
feed hay and corn, at about double the cost of pea feeding. As the corn feeders will have to make a living profit, there is little danger of the price of fat lambs ever being reduced below a point where it will pay valley farmers a large profit.

**Field Peas for Hogs.**

Hogs can be fattened on field peas as well as lambs. In the cool climate of the San Luis Valley hog cholera and swine plague are absolutely unknown. Enormous crops of roots can be raised as maintenance crops for herds of swine, to be finished off on field peas. Pea-fattened pork is of the highest quality, especially for butchering and bacon making, and the exceptionally healthful conditions under which the hogs are raised and fattened puts San Luis Valley pork products almost in the line of fancy articles. Denver and Pueblo packers are now paying from ten to fifteen cents per hundredweight more for pea fed hogs than for hogs of the same grade fattened on corn.

Field peas are also cut for hay. They can be threshed, and many fields in the San Luis Valley in the season of 1905-06 have netted above $25 an acre to the farmers for pea seed. Successful experiments in fattening cattle on peas, barley and pea hay have indicated a new use for this plant.

One of the remarkable things about field peas is that they leave the soil richer for growing in it. They are air feeders, drawing nitrogen from the air and leaving the valuable nitrates in the ground to act as fertilizers for the next crop. Old and worn-out farms have, by means of the field pea, been restored to the highest fertility in a few years.

**Hay Production.**

A great many square miles of the San Luis Valley are devoted to the production of wild hay. This hay is of the highest nutritive quality and thousands of tons are shipped into the mining camps every year to feed the teams that haul the ore wagons. The hay ranches are also the basis of an immense cattle and horse industry. There are the best summer ranges on the mountains on every side of the valley, which cattle and droves of horses. In farms and the winter pastures, feeding on the second growth of grasses, which cure on the ground. Horse breeding in the valley is as yet almost in its infancy. It has been found that the altitude gives horses great strength of wind and limb, and the grade of the breeding stock is being steadily raised to meet the demand for extra good animals.

**Grain Crops.**

It was as the grain growers' paradise that the San Luis Valley first came to the front. Although the seasons are short, the intense sunlight in summer forces a very quick growth. The climate prevents rusts or other fungus enemies of grain, and there are no Hessian flies or chinch bugs to do damage. The farming lands of the valley are almost perfectly level, with just enough slope for irrigation, and this condition makes the growing and harvesting of grain an easy matter. Crops of 40 to 60 bushels of wheat, 60 to 90 bushels of oats, 70 to 90 bushels of barley, and 30 to 40 bushels of peas to the acre are not unusual. Both in the sheaf, in the bin and when ground into flour, San Luis Valley wheat is of the highest quality. The flour which took the high-
est of all prizes at the St. Louis Exposition came from the "Conejos roller mills," at the lower end of the valley.

By continued selection and by importing seed for tests from all parts of the West, the San Luis Valley farmers have developed acclimated varieties of grains which yield crops no matter how short spring and fall frosty may cut the season.

Potatoes.

The greatest yield of potatoes on a measured acre of ground ever recorded, 794 bushels, was raised in the San Luis Valley in 1902, in competition for a prize offered by the American Farmer. Potato production is becoming more of a feature of valley farming every year. There are three principal districts, one north of Monte Vista in what is known as the sub-irrigation belt, one between Monte Vista and Del Norte along the Rio Grande river, and the other about Romeo, in the southern end of the valley. The land at Romeo, like that north of Monte Vista, sub-irrigates, which means

![A SAN LUIS VALLEY POTATO FIELD.](image)

that if water enough is put on the land, it will draw up from below, and keep the surface continuously moist, but never wet. Under these conditions, the moisture at the potato roots can be exactly regulated, which results in potatoes of exceptional quality. The high altitude is another factor in contributing to the fine quality of the San Luis Valley potatoes. The plants grow with very small tops, which helps in cultivating and digging the crop. The average yield is about 100 sacks (200 bushels) per acre. The valley gets better freight rates to a great many points south and east of Colorado than other potato growing sections in the state, and as a result the growers are generally sure of a profitable price. A distinctive market for the potatoes from certain sections is being built up, and this traffic promises to have important developments.

Sugar Beets.

The San Luis Valley has at present no sugar factory, and is not within hauling distance of any. Beet growing is, therefore, not one of the present sources of profit for the farmers. Tests have been made, covering several years, both on the tonnage of beets that can be grown per acre, and the
amount of saccharine matter contained, and it has been shown the sugar
beets can be produced in immense quantities as soon as a sugar factory is
established.

Some peculiarity in the climate and soil of the San Luis Valley favors
root growth. Carrots have been grown six inches across, rutabaga turnips
to weigh 40 pounds and over, and mangel wurzels to yield upward of 30
tons to the acre. The growing of roots promises to become an important
adjunct to pea raising, to raise and fatten hogs and cattle.

Gardening and Fruit Growing.

For a long time it was supposed that the San Luis Valley could never
be considered a fruit raising section of the state, but developments of the
last few years indicate that along certain lines large profits can be made in
the valley. Some of the hardier apples, crabapples, plums and pears bear
well, and such a thing as a worm is absolutely unknown. In texture and
flavor San Luis Valley fruit is well above the average. Small fruits, such as
currants, strawberries and raspberries, yield large crops of high quality.

Vegetable growing yields good returns in the valley. Onions, cabbage,
celery, string beans, garden peas and asparagus are crops to which the cool
climate gives extraordinary crispness and high quality. Garden peas last
from June until October. Garden flowers, too, do well, sweet peas being a
specialty in which the San Luis Valley beats every other part of the state.
Shade trees grow rapidly, and it takes but a short time for a settler to have
his house surrounded by trees, lawns and flowering shrubs, if his tastes run
in that line.

Artesian Wells.

Over one-third in area of the San Luis Valley, artesian wells can be
obtained by boring from 140 to 300 feet. The water from these wells is
pure, almost perfectly soft, cool and palatable. By reducing a six-inch bore
to one inch, in most portions of the artesian belt, enough pressure can be
obtained to send the water to the second story of a house. The cost of an
artesian well varies from $75 to $250. Once bored, there is a never-ending
supply of water, with no further expense. In some sections use has been
made of the artesian wells to successfully irrigate considerable areas of
land. Apart from the value for irrigation purpose, the use of the artesian
wells in supplying to the farmers a continuous flow of water for domestic
and stock purposes, is a material addition to the advantages of the valley.
In those parts of the valley which are above the level of the artesian water,
surface wells generally produce pure, soft, clear water at no very great
depth from the surface.

Irrigation in the San Luis Valley.

Farming in the San Luis Valley is entirely dependent upon irrigation,
and the soil is peculiarly adapted to the application of water. The Rio
Grande river, which traverses New Mexico and forms the boundary between
the United States and Mexico, before reaching the Gulf of Mexico, has its
source and gets the bulk of its flow in the high mountains north and west of
the San Luis Valley, flowing diagonally across the valley. Immense canals
have been constructed to bring the waters of this river out upon hundreds
of thousands of acres of lands. The land in the San Luis Valley lies al-
most level, but with a constant slope of from 5 to 35 feet per mile. The
evenness of the slope permits the running of the ditches and laterals along
section lines, instead of cutting through farms and fields, thus saving much
trouble to the farmers.

The Conejos river, which rises in the Continental Divide almost at the
southern boundary of Colorado, flows northeastward to join the Rio Grande,
and is a large and reliable stream. In the northern part of the valley the peaks of the Sangre de Cristo and Cochetopa ranges send down a score of streams, which unite in the San Luis river, which flows south toward the Rio Grande, but which sinks into the ground in a series of lakes before reaching the main stream. La Jara and Alamosa creeks, rising in the mountains west of the valley, are important streams for irrigation.

Sub-irrigation is a feature in many parts of the valley. The soil that sub-irrigates is volcanic in origin, very loose and porous and extending without any "hard-pan" to bed rock, ten to fifty feet below the surface. Continuous irrigation fills the ground with water from the bed rock up to within a few feet of the surface. Then the application of a small amount of water at the surface will bring up the moisture from below. The ground is smoothly moistened, and retains the moisture a long time. This method, where it can be applied, results in greatly lessening the labor of irrigation.

Towns and Railway Facilities.

The lines of the Denver & Rio Grande railroad traverse the San Luis Valley from north to south and from east to west. At Salida, to the north, the valley has connections with the main line of the road, affording shipping facilities to all points east and west. From the southern end of the valley runs the Silverton branch, which reaches the great San Juan mining district, and the lumbering camps of Archuleta county and northern New Mexico. From the southern part of the valley there is also the line to Santa Fe, New Mexico, which gives an outlet to New Mexico, Arizona, Old Mexico and western Texas. On the east side of the valley, the Denver & Rio Grande railroad has recently spent several million dollars in building a broad gauge railway over La Veta Pass. This line connects at Walsenburg with lines to Texas and the Gulf ports, at Pueblo with lines to Denver and to the East, and at Cucharas Junction with lines running to the great coal region of southern Colorado.

Alamosa, at about the center of the valley, is the junction of the roads running north and south and east and west. The branch to the west ends at Creede, one of the greatest mining camps in the state. Monte Vista and Del Norte, on this branch, are among the oldest established settlements in the valley, surrounded by prosperous farms, with good schools, churches, banks, rural postal routes, and all the attributes of prosperity. North of Alamosa, on the line to Salida, are the towns of Hooper, Mosca, Moffat and Villa Grove, each of which serves an advancing agricultural community.

Saguache, seat of Saguache county, is off the railway, but is a beautiful little town, with shaded streets and fine schools and churches.

South of Alamosa are La Jara, the seat of a creamery and surrounded by land which is being rapidly developed; Romeo, the center of a large potato growing industry, and Antonito, a railway town, and one of the greatest sheep markets in the United States. On the mountains above Antonito, and running into New Mexico, millions of sheep are grazed, and every fall hundreds of carloads of lambs, yearlings and old ewes are sold to feeders to be converted into mutton.

The southeastern portion of the San Luis Valley, lying between the Rio Grande river and the Culebra range, is included in a large land grant, and has not yet been fully developed. There are several prosperous settlements of Mexicans and whites. San Luis, county seat of Costilla county, is the principal town, and is reached by stage from Fort Garland.

Getting Land in the San Luis Valley.

There is very little government land left in this region that is available for settlement, but there is no difficulty in the way of a new settler getting started. There is a large area of land under ditch from the Rio Grande
river, originally farmed by men whose ambitions ran high, and who plowed large tracts. These big holdings, cut up into farms of a quarter section or less, are now on the market. There is also much good land, under ditch, which had apparently been "farmed out" until the field pea discovery showed how its fertility could be profitably restored, and which is now on sale at comparatively low figures. In all parts of the valley there are bargains in partly improved farms, which offer big profits to careful farmers and stock-growers. About Romeo, in the southern end of the valley, much land has been brought under irrigation by the construction of a new canal, whose water rights were bought from the early Mexican settlers and so are of very early priority. Two large reservoirs above La Jara, which are approaching completion, will irrigate a large area of very good land.

The custom of the valley is to sell lands to genuine settlers on very easy terms and with low rates of interest. The land, if not already broken, is easy to get under cultivation. The mountains on either side afford firewood, poles and fence posts for the trouble of cutting and hauling them, lumber is cheap, coal is cheap, and the climate is such that small houses and barns supply the needs of the settlers while getting under way. Much building in the San Luis Valley is done with "adobe" or sun-dried bricks, which make durable, handsome and very comfortable houses at much less cost than either brick, stone or frame. In any less dry climate, such houses might melt away in a rain storm, but in the dry air they last indefinitely. The oldest building in the United States, the old church at Santa Fe, New Mexico, has stood four hundred years, and is built of solid adobe.

The San Luis Valley has tried its experiments. New settlers who come to handle any of its many farms will know at the outset what they can raise, and where they will find markets. One of the greatest needs of the valley is good farmers, men who understand the raising of hogs and other farm animals, who stay close at home, till every acre closely, harvest every portion of the crop; who build good houses and barns, support good schools, churches, etc., and raise crops of high quality. Such men need have very little cash in hand in order to get a good start.

Chapter X.

MONTROSE AND THE UNCOMPAGHRE VALLEY.

Montrose, the principal town of the Uncompahgre Valley, in the western part of Colorado, is at present one of the most interesting points for the homeseeker. Montrose, a beautiful and wide-awake city, is the capital of a vast empire which is rapidly being prepared to be the home of thousands of happy families, living amid orchards and prosperous farms.

The present population of the city is about 3,000, with an annual increase of about 35 per cent. The town is well built, of good materials, and has several new and handsome business blocks. A city water system, newly constructed, assures for the town a continuous supply of the purest mountain water. Montrose is the headquarters of the United States Reclamation Service in western Colorado, is the county seat of Montrose county, has the United States land office for a large district and is a junction point for the branch of the Denver & Rio Grande railroad system which runs south to Ridgway and there connects with the Rio Grande Southern for the Silver San Juan.

Montrose is already the center of a prosperous farming and fruit raising community, producing every variety of fruit and vegetables in profuse crops and of prize-taking quality, but its present development affords only a nucleus of the development which is to come.

There are two reasons why the Uncompahgre Valley stands prominent above Colorado's other valleys in the minds of the homeseeker. One
reason is that this valley, under its present incomplete system of irrigation, has made a remarkable record of productiveness, not only in fruit, but in all kinds of farm and garden produce. Another reason is that in this valley the Reclamation Service of the general government is building a great irrigation system, by which plenty of water will be provided for nearly 150,000 acres of land, and this land is to be divided among actual settlers upon terms that put it within the reach of almost any man.

The Uncompahgre Valley.

The Uncompahgre (pronounced "Oon-kum-pah-gr") Valley, lies in the very heart of the Rocky Mountains, on the Pacific slope, about 300 miles southwest of Denver and about 230 miles exactly west of Pueblo. It is reached by the Gunnison line of the Denver & Rio Grande. The narrow gauge leaves the main line at Salida, climbs the Continental Divide at Marshall Pass, by a route whose scenic splendors and engineering achievements have never been equalled, descends into the valley of the Gunnison river and follows that large stream down through valleys and canons that grow ever narrower. Finally, after passing Curecanti Needle, the granite spire which has become the scenic trademark of the Denver & Rio Grande system, the canon becomes so narrow that there is not even room for the tracks, and the train climbs up the walls, crosses to the head of Cedar creek across Cerro summit, and rolls down into the wide Uncompahgre Valley.

The Uncompahgre Valley has mountains on every side of it; to the east, the Sawtooth mountains, so called for their jagged outlines; to the south the San Miguel range, towering to above 14,000 feet and a part of the backbone of the continent; to the west the rounded Horsefly mountains, whose summits are covered with grassy pastures; and to the north the Grand Mesa, whose flat top, set aside as a government forest reserve, alternates with grassy meadows, thickets of aspen and forests of spruce and pine, in which game of all kinds finds shelter. The Uncompahgre Valley itself lies...
in level mesas and in gentle slopes, an average of twelve miles wide and 35 miles long, sheltered from storms, the warmth of sunshine almost every day of the year tempered by the breezes from the mountains, the soil of great depth and inexhaustible richness, and the climate favoring the growth and development of every vegetable from grain and hay to the richest flavored fruits, and every animal from the lowest farm product to the highest—man.

**Water Supply—Present and Prospective.**

The Uncompahgre river, which flows about through the center of the valley, is a stream of varying volume. In most years it draws from the melting snows of the San Miguel range a supply of water sufficient to make 40,000 to 50,000 acres of farms and orchards productive. But there have come years, and may come again, when the snows on the mountains melted off in July, leaving the stream in late summer a mere trickle of water, barely sufficient for 10,000 acres of land or less. The Uncompahgre river, however, has served to show that with water the whole immense area can be made more productive, almost, than any other similar area in the world. The orchards of the Uncompahgre Valley have for years been producing enormous yields of fruit, and that of the very highest quality. The grain fields, onion fields and potato patches have added their records of production to demonstrate the value of this soil and climate.

Flowing parallel to, and only twelve miles away from the Uncompahgre river, which flows into it at the lower end of its valley, is the Gunnison river. The Gunnison runs back one hundred miles and more into a great bend of the Continental Divide, where it has hundreds of tributaries, reaching some of the highest ground on the continent, where the snow does not all melt even in midsummer. So the Gunnison is a much larger stream than the Uncompahgre at all times of the year. But the Gunnison, while having a great deal of water, has very little land along its banks. Its valleys are narrow, and it finally drops into the Black Canon, a gorge so narrow and rugged that only two men have ever gone through it and emerged at the lower end to tell their adventurous tale.

With a lot of water in the Gunnison and little land, with a little water in the Uncompahgre river and a good deal of land, the problem of uniting the rivers has long interested irrigation engineers. The valley of the Uncompahgre lies a little lower than the canon of the Gunnison, so surveys showed that a tunnel through the intervening ridge would put water over practically the whole of the Uncompahgre valley.

At one time, the state of Colorado undertook to drive a tunnel through the mountains, but it soon appeared that the undertaking was too great for the resources of the state, and the work was turned over to the United States Reclamation Service to complete.

**The Gunnison Tunnel.**

The Gunnison tunnel reclamation project, of which about twenty per cent. had been completed at the beginning of the year 1906, will cost upwards of $2,500,000. It is difficult for a person who has not been on the ground to appreciate the stupendous nature of this undertaking. To check a large river, flowing in a deep, granite canon, carry the immense flow through five miles of solid rock, and then distribute it over 150,000 acres of land is an engineering feat of no small dimensions.

The Gunnison tunnel will be 39,600 feet in length, 11x13 feet in cross section, and will be lined with concrete from end to end. It will be provided with massive headgates at the upper end to regulate the flow of water and to prevent destruction in time of flood. The tunnel will cut the mountain at a depth of 2,700 feet and the 1,300 cubic feet of water which it will deliver every second of time will pass through it with a velocity of ten
and one-half feet per second. The construction of the tunnel alone will involve the removal of 5,212,600 cubic feet of shale and granite. It is now being bored from both ends and from a shaft sunk about midway of its course.

The river portal is connected with the Uncompahgre Valley by a wagon road, over which has been hauled the material for the headgate and controlling works, the necessary buildings, a power plant for operating the drills and machinery in the tunnel by means of the power in the river, cement and other materials. The construction of this road was in itself a difficult piece of engineering.

The Distribution System.

There will be three canals from the mouth of the Gunnison tunnel. The West canal will irrigate the lands west of the Uncompahgre river, some

![Completed section of the South Canal.](image)

65,000 acres in all. It will furnish water for approximately 200 miles of distributing laterals, and will have a capacity of 650 cubic feet of water per second.

The South canal will carry the water from the tunnel across to the Uncompahgre river. This canal, twelve miles in length, is approaching completion. It is thirty feet wide on the bottom, seventy feet wide on the water surface, and ten feet deep. It can carry the whole capacity of the tunnel, 1,300 cubic feet of water per second. Part of the way it is lined with concrete. In order to prevent the stream in the canal moving too fast, it will have a number of "drops," or artificial falls. These are being made of concrete, steel and masonry in the most substantial manner. It is estimated that these drops will furnish 6,500 horsepower and it is intended to harness this enormous energy to electrical generating machinery and thus provide the towns in the Uncompahgre Valley with cheap power for manufacturing purposes.

The East canal will irrigate the lands east of the Uncompahgre river and north of Montrose. This canal will be 25 miles long with a capacity of
630 second feet. This will reach a region now desert, and all the laterals will have to be constructed. It is the intention of the government engineers to use to a considerable extent the irrigation works, canals, laterals, etc., already in use in the valley, and for this purpose much of the water will be brought across the valley in the South canal, and turned directly into the stream, to be taken out again in the headgates of canals below.

The Reclamation Law.

The reclamation service is a bureau of the Interior department under the Geological survey, and its office is to reclaim or irrigate arid lands and open them to settlement under the provisions of the reclamation act. The passage of the reclamation act, which means so much to the West, was the first signal achievement of President Roosevelt's administration. It is a law of the United States, passed Jan. 17, 1902, which provides that all moneys received from the sale of government lands in each of the arid states or territories shall be placed in a "reclamation fund," to be used in the construction of reservoirs and other irrigation works in the respective states. The lands reclaimed are to be placed in the possession of actual settlers, who shall pay for the water rights in ten equal annual instalments, without interest. The price of the water rights will be the exact cost of constructing the irrigation works, equally divided among the land benefited. In the Uncompahgre Valley, the cost of the water will be somewhere between $25 and $40 per acre, this amount depending upon the final cost of the works, and the amount of land which it is finally determined may be watered. The time when the ten payments shall begin is determined by the Secretary of the Interior, who when any irrigation project is approaching completion, issues a proclamation stating the land to be irrigated, the probable cost per acre, and the terms of entry. The probable rule will be to let the settler harvest one crop before his ten payments begin.

The completion of the Gunnison tunnel and distributing works is expected in time for the irrigating season of 1909. Under fortunate conditions it may be ready by June 1, 1908, but so early a completion is not anticipated.

Privately Owned Lands.

In order that the benefits of the act may be gained by actual homeseekers and not by land speculators, it is provided in the law that lands under government ditches or reservoirs, and under private ownership shall not share in the benefits of the act unless the owners agree to sell them to settlers, under the same general provisions as in the reclamation act. All lands not sold by a certain time are sold off at auction to actual settlers bidding for them. Under the Uncompahgre tunnel, of the 150,000 acres available for irrigation, only about 20,000 acres is public land. The rest has been transferred to the Water Users' association, which holds it for sale at prices ranging from $10 to $25 an acre, without water rights, the value of the land depending upon its availability for fruit culture, distance from town and railways and other considerations.

The Farm Unit.

Where the soil and conditions favor fruit growing in the Uncompahgre Valley it is the intention of the government to limit the land ownership to a certain area. The whole valley will be gone over by land experts, who will divide it into "farm units," representing the amount of land which will comfortably support a family. These units will probably vary from 80 to 160 acres, but on tracts which are somewhat broken or where the land is thin or for any reason of an inferior quality, the corresponding farm unit may be increased. Should an intending settler purchase 160 acres of land under the projected system at the present time, and it should later
be determined that the farm unit for that locality should be only 80 acres, the purchaser, before he can get water rights from the government, will have to sell back to the Water Users' association, or to some actual settler, the extra 80 acres of land. These provisions are designed at every point to favor the man who wants a home, and to shut out the man who only wants to get a farm which he can rent to some other man, or wants to speculate in land.

The Government Land.

The twenty thousand acres of land in the Uncompahgre Valley is open to actual settlers, under the homestead act. The man who takes up one of these homesteads now, in advance of the completion of the canal, will have to make his actual home upon the land. If, when the government work is completed, the farm unit in his locality is reduced, he will have to relinquish part of his quarter section to another settler. Actual residence upon the land will be necessary to secure a water right, and not until all the

ten annual instalments have been paid will the water right be transferable. This last provision applies to land now under private ownership as well as to land taken up as homestead. There is a United States Land Office at Montrose, where government land may be entered, and the Water Users' association has an office in the same town, where any piece of land in the valley, now under private ownership, and which the owner has not reserved for his own home, may be bought by intending settlers.

Crops in the Uncompahgre Valley.

In this valley the homeseeker has the unique advantage that he may see on the identical kind of land which is open for settlement, all kinds of crops growing, from the apple and the peach to the lowly potato and the fragrant onion, and he can know with a certainty impossible in any but
an irrigated section, that when the water flows on his arid acres, he can have just as fine an orchard, just as heavy a crop of grain or potatoes or alfalfa, as any that are shown him.

Fruit growing is the most profitable form of farming in the Uncom- pahgre Valley. The list of fruits grown to perfection includes all kinds of apples, pears, peaches, apricots, plums, cherries, quinces and all kinds of berries. The fruit grown here reaches that high note of quality which makes a market for it certain. Here, as in other fruit valleys of Colorado, apple buyers are on the ground, contracting for the output of entire orchards before the blossoms fall to the ground. Here grow peaches of the surpassing color and flavor that have put Colorado peaches at the head. There are no off years, and no failures to offset several years of productivity. Under irrigation and in a dry climate, blights and insect enemies are easy to fight, as there are few rains to wash the insecticides from the trees, after they have been sprayed.

The returns per acre from a bearing orchard, five years or more old, reach a figure which is almost incredible to a person who has never seen the enormous burdens of fruit taken from the bending branches of the trees. The annual report of the Colorado State Board of Horticulture for 1902, contains a carefully collected statistics upon yield, including the following figures for orchards in the Uncompahgre Valley.

- **Apples**, average yield barrels 150, at $2.75, total value per acre $412.50
- **Pears**, average yield boxes 300, at 75 cents, total value per acre 225.00
- **Peaches**, average yield crates 600 at 50 cents, total value per acre 300.00

In 1904, Mr. John Ashenfelter, who has an orchard of 380 acres, cleared on his Elberta peaches the sum of $755 per acre, while Mr. Switzer, another successful orchardist of the Uncompahgre Valley, showed net returns on Elbertas from his orchard near Delta of $1,300 per acre. The valley has suffered just one peach failure in twenty years. Delaware, once called the peach state, can boast of having only one full crop in five years.

Vegetables are grown almost without limit. One man produced and exhibited at the Western Slope fair, held at Montrose in 1904, 117 different kinds of vegetables. Fields of potatoes are grown that run 200 sacks (400 bushels) to the acre, and so large, withal perfectly sound, that twenty potatoes make a bushel.

Mr. O. H. Horton of Olathe has for four years farmed four and one-half acres of land in onions, averaging a net annual income of $3,193.75. In 1902 this land produced 1,200 sacks of onions, and in 1905, 2,100 sacks.

L. E. Ross of Olathe has 40 acres of bench land which he has farmed in oats for twelve consecutive years. The first year it produced thirty bushels per acre, and the twelfth year 65 bushels. The average yield of wheat for the entire valley, good, bad and indifferent, is a little better than thirty bushels per acre, while the best land, properly farmed, easily produces 65 bushels per acre. All kinds of hay and forage crops—alfalfa of course—grow profusely.

Sugar Beets.

The Uncompahgre Valley furnished about 1,000 carloads of beets for the Grand Junction factory, in the season of 1905. In spite of the long haul, the business proved profitable for the factory, on account of the high sugar content of the beets from the Uncompahgre Valley. Beets grow here of the highest quality and with a large yield to the acre. Farmers report a net profit of from $40 to $55 per acre, after paying all costs of preparing the ground, seeding, labor, etc. The construction of the Gunnison tunnel
assuring a liberal supply of water the summer through for a greatly increased area of land practically assures the construction of at least two and probably three beet sugar factories in the valley.

Beets can be grown to advantage between the rows of young trees in starting orchards, thus giving settlers a chance to make a good living while their farms are reaching the higher productiveness due to fruit growing.

**Uncompahgre Valley Soil.**

The river bottom of the Uncompahgre Valley is a rich, black, sandy loam, of inexhaustible fertility and especially adapted for the growing of onions, beets and similar crops. Much of this land, which will be irrigated when the Gunnison tunnel is completed, is covered with trees and brush, and will require clearing.

Of the bench lands in the valley, there are two classes, the red sandy soil and the gray soil, or adobe. The former is especially adapted to fruit growing and gardening. Orchards will grow and do well in the adobe soil, but the greater part of the gray area will probably be devoted to the production of alfalfa, grain, potatoes and sugar beets. The gray soil, while a little harder to work than the red, is of remarkable permanence of fertility.

The soil experts of the Reclamation service have made the following classification of 150,000 acres lying within the scope of the Gunnison tunnel project:

- **Class 1.** Red lands lying favorably for irrigation, with even surface, light gravelly soil, with good drainage, acres......55,840
- **Class 2.** Gray lands lying favorably for irrigation with even surface, light, acres.................................80,640
- **Class 3.** Red or gray lands, with steep slopes, requiring leveling up, lands uneven, broken by hills, gulleys, and ravines, or somewhat rocky, and all classes of land that cannot be ranked as belonging to the first grades, acres......14,700
- **Class 4.** Lands not susceptible of irrigation, but which can be used for stock yards, pastures and similar uses in connection with the irrigable lands, acres......................29,800

**Towns in the Uncompahgre Valley.**

Besides Montrose, now the largest town, the Uncompahgre Valley has several other points which are destined to become important cities when the water and the settlers get to working together on the land.

Olathe, twelve miles below Montrose, is at the center of the greatest body of land under the Gunnison tunnel irrigation system, and is therefore expected to assume proportionate relations to the other towns of the valley. It has now between 500 and 1,000 inhabitants, with many enterprises under way, and the expectation of a sugar factory as soon as the water is on the land.

Cedar Creek, on the Denver & Rio Grande railway, at the very head of the Uncompahgre Valley, is at present a station of considerable importance, as it is situated only one and one-fourth miles from the western end of the great Gunnison tunnel. From this point also starts the wagon road which crosses the Mesa Verde and climbs down into the Black Canon of the Gunnison, to take supplies to the river end of the tunnel. Cedar Creek is the center of a considerable area of land which has been watered by private capital, by a canal brought over from the Cimarron river. This system has been in operation two years, and has proven an entire success. Bostwick Park, which begins on the mesa directly back of Cedar Creek and contains about 3,000 acres of arable land, is being rapidly settled up. Cedar park mesa, containing about 1,500 acres, under this canal system, is also being occupied by settlers. Besides this land, there is a considerable area in the Uncompahgre Valley proper under the Cimarron canal which will also be watered by the
Gunnison tunnel. There is no conflict between the two enterprises, but on the contrary plans are being considered for merging the Cimarron enterprise with the Gunnison tunnel project, an arrangement by which the distribution of the water so it will do the greatest good will be facilitated. Cedar creek, besides being the center of these activities, is the shearing and wool point for flocks of sheep, comprising about 25,000 head, which are grazed upon the hills above. The Cedar creek mesas, it is claimed, lie in the path of the frost-dispelling breezes in the valley, upon which the orchardist depends to protect the blossoms when it gets too cold in the late spring.

Delta, at the lower end of the Uncompahgre Valley, has a tributary valley of its own, and is also at the lower end of the North Fork Valley, which entitles its description to head a chapter by itself.

The homeseekers will find in the Uncompahgre Valley opportunities for growing almost any kind of crop, ready markets, and a population, already prosperously established, which welcome new comers and does everything possible to help them to become prosperous. The Water Users' association of Montrose exists largely for the purpose of giving information and helping settlers, and its efforts second those of the Montrose Chamber of Commerce.

The Uncompahgre Valley, like about all of the valleys of Colorado that are really worth while, is reached solely by the lines of the Denver & Rio Grande railroad, which traverse its entire length.
Chapter XI.

DELTA AND THE NORTH FORK COUNTRY.

The North Fork country now has a railway of its own, but until the Denver & Rio Grande railroad extended its lines to meet the fruit growers' demands, Delta was the shipping point for this entire rich region, and they are still classed together.

Delta has tributary to it some 30,000 acres of fine land in the lower end of the Uncompahgre Valley, 15,000 acres in the valleys directly adjoining, and some 10,000 acres extending up the valley of the Gunnison river toward the North Fork, so that it is now, always will be one of the most important towns of the Western Slope.

Delta at present has a population of about 2,000 and is growing very rapidly. Just behind the town rises the Grand Mesa, a magnificent plateau, its level summits dotted with lakes and summer resorts, including fine fishing and hunting grounds. The water supply of the city is taken from springs at the edge of this mesa, and is of extraordinary softness and purity. Delta has besides the fresh fruit packing industry several other lines of business, including coal mining, iron ore production, canneries, fruit dryers and other agricultural enterprises, and expects soon to have a sugar factory.

All around the town is a highly productive fruit section. The shipments of fruit from Delta station in the season of 1905 included more than 1,500 carloads of apples, worth $500,000, while the shipments of peaches, plums, prunes, apricots and small fruits totalled another $100,000 in value.

The valley of the North Fork of the Gunnison, which lies in Delta county and is reached by a railway line whose junction point is at Delta, is a section which is getting scores of new settlers every month. This valley started only a few years ago as part of an Indian reservation. Without a railroad, it built up such a reputation for the quality of its fruits that the rails were laid to meet the growing orchards. Without the aid of the government, or of much outside capital, it has brought under irrigation an immense area of land, much of it lying in mesas and benches, difficult to get water upon. Without any booming, it has taken its place near the head of the fruit productive sections of the state.

Fifteen miles east of Delta the Gunnison river emerges from the Black Canon, into whose inaccessible gorges it plunges at Cimarron, 40 miles above, and from this point it flows in a wider valley. This valley, and that of the North Fork of the river comprise what is known as the North Fork country. The North Fork Valley is surrounded by mountains so high, and with such continuous ridges that it is almost completely protected from storms and cold waves. Though the valley is higher than some of the other fruit valleys of the state, its climate has been adjudged the best of all, and its soil has been found to join with the climate in producing that delicate but profitable distinction of quality which puts "North Fork" fruit in a class just ahead of "extra fancy" all by itself.

Maintaining High Quality.

To maintain this high quality, and so preserve this priceless reputation, the fruit growers of the North Fork Valley are tightly banded together in Fruit Growers' associations, of which there is one at each principal shipping point. These associations buy the fruit as it comes from the orchards, grade it, mark the boxes and sell it according to grades. Fruit buyers have found that a box of apples or peaches marked by one of the North Fork associations contains exactly the right grade of goods, free from insects, worms or defects.

Upon the Elberta peach rests secure the fame of this section. Of rich, yellow color, magnificent flavor and juiciness and of large size, this variety

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of the luscious fruit demands the best of conditions—and gets them in the North Fork Valley. The Jonathan, Rome Beauty, Grimes Golden and Wine-sap are the favorite varieties of apples, being highly colored, firm fleshed and possessing a flavor that can not be equalled. To give an idea of the profits made in these fruits; a full grown tree of one of these varieties usually yields from 8 to 12 boxes of apples each season. There are 80 trees to an acre. In the season of 1903, the Paonia Growers’ Association contracted all its apples to Newhill & Son of Chicago at $1.40 per box, on track at Paonia. A close computation of the cost of picking, packing, boxes, etc., is 39 cents per box, leaving the grower a net return of $1.01 per box, or from $600 to $1,000 per acre.

The language of official reports by disinterested experts, upon the North Fork Valley exceeds in enthusiasm that of the residents. For example, after Prof. H. S. Van Deman, pomologist of the agricultural department at Washington, had visited the valley, he reported to the government as follows:

"In all my travels I have not seen a more profitable or delightful place to grow fruit than the North Fork of the Gunnison river. The fruit interest here is beginning to override all others, and orchards are being planted in every direction. The table lands, or mesas are entirely free from alkali properties, and seem to be best for fruit. They are extremely well adapted to all kinds of deciduous fruits. The peach, apricot and all deciduous fruits were bearing profusely. No insect enemies were seen or heard of in this vicinity."

**The Water Supply and Soil.**

The North Fork Valley is watered by streams whose sources of supply lie high on the surrounding mountains, and maintain a constant flow, sufficient for all the land in the valley. The soil of the North Fork Valley is light, easily worked and unfailingly fertile. It is exceptionally free from alkali.

In the higher reaches of the valley, where it gets too cool for all kinds of fruit always to succeed, immense crops of alfalfa and hay are grown, while the slopes of the mountains just beyond afford abundant pasturage for the cattle and horses that are raised by the valley farmers.

A branch of the Denver & Rio Grande railroad from Delta extends 43 miles to Somerset, where are coal mines producing a very good grade of bituminous coal. This line runs almost continuously through farms and orchards and in summer and fall is kept busy with trainloads of peaches, apples, sugar beets and other products of the valley.

Hotchkiss, 25 miles from Delta, was a thriving town when its sole outlet was a wagon road. It has a population of 1,000, and an elevation of 5,369 feet, boasts one of the largest mercantile establishments on the Western Slope, two churches, two banks, a fine stone school house, two telephone systems, a first class hotel, and has within ten miles and only slightly developed what seems to be one of the largest deposits of anthracite coal in the United States. In the vicinity of Hotchkiss there is 30,000 acres of land under cultivation, and more than a million dollars invested in ditch improvements. The town is surrounded by orchards, while the mountain scenery is very fine. The discovery of radium springs within two miles of the town may add the attractions of a health resort to the other charms of the place.

Paonia, eight miles further up the valley, is a younger town than Hotchkiss, but has almost equalled it in growth. Paonia has a two-story and basement brick school building, churches, banks, electric lights, a city water system supplying pure spring water by gravity pressure, and many enterprising mercantile firms.
Surface Creek—Crawford—Maher.

The Surface Creek section of the North Fork Valley lies north of Hotchkiss and off the railway. Recent reservoir and ditch construction in this locality has brought under cultivation a large area of mesa land, splendidly adapted for fruit growing. The town for this section is called Cedar-\_edge. South of Hotchkiss and Paonia, on what is called the Smith Fork of the Gunnison river, are the towns of Crawford and Maher. These towns are based upon recently constructed canal and reservoir systems which have opened much good land for settlement. These sections, somewhat remote from the railway, offer land of first class productive quality at moderate prices, and their promoters point to the fact that the railway was built up the valley to meet the fruit production along the river, as evidence that the planting of orchards in the outlying sections will certainly bring the rails there in time. Below Hotchkiss, a ditch system is under construction which will irrigate 10,000 acres or more of land lying between Hotchkiss and Delta, close to the railway.

In the North Fork Valley, while the record of continued successes has naturally increased the value of the fruit lands, there are opportunities for every purse—bearing orchards that say $1,500 an acre, cash might buy, and mesa lands, away from present lines of railway that a settler can get as cheap as $25 an acre with adequate water rights, and have long time to pay for.

Chapter XII.

THE LOWER GRAND RIVER VALLEY—GRAND JUNCTION AND FRUITA.

The largest river in Colorado is the Grand. Rising in the loftiest portion of the Continental Divide, in the northern part of the state, it flows through deep canons and through broad valleys, receiving at every few miles the contributions of streams which, like the parent, drain high peaks, until the Grand finally rolls away unused to the sea, a constant volume of water sufficient to irrigate half the area of the whole state, if only it could be applied to the land.

The farmer whose ditch taps the Grand river need have no care save to keep that ditch open and running and its headgate in order. He has no need for reservoirs. He never has to divide flows with his neighbor, but knows that his water is ready for him, as much as he can use, as often as he needs it. The land adjoining the Grand river is as rich and productive as that of any of the fertile valleys of the state, and the perennial abundance of water has made the Grand River Valley one of the most prosperous.

Grand Junction.

Grand Junction, the largest city of the Western Slope of Colorado, lies at the junction of the Grand and the Gunnison rivers, the capital of a vast empire of developed and undeveloped country. Just above Grand Junction the Grand river emerges from a series of alternating canons and wide valleys, into a vast sweep of irrigable slopes, covering hundreds of thousands of acres of land. Only the lower slopes of this vast territory have as yet been brought under water, but all of it waits only the coming of the people who want the land, to be made equally productive with the farms whose annual crops run into the hundreds of dollars an acre every year.

"We have everything we want but more farmers" is a common saying at Grand Junction. The region enjoys, like most Colorado valleys, an unmatchable climate. A score of profitable channels open to the man who tills the soil. There is a sugar factory, a canning factory, ample railway facilities
THE BEET SUGAR PLANT AT GRAND JUNCTION.
east and west, on the great transcontinental route of which the Denver & Rio Grande railway is a link. Grand Junction is the county seat of Mesa county, which covers not only the valley of the Grand river for fifty miles and the valley of the Gunnison for twenty-five miles, but extends upon the high mesas or plateaus on either side of the valleys, and into the rich smaller valleys of the tributaries to the Grand and the Gunnison. The population of Mesa county is now 18,000 and it has a total assessed valuation of $4,966,752, or a per capita holding of $276. As the assessed valuation is less than half the market value, the per capita wealth of the county may be placed at close to $600. In Grand Junction dwells a population of 7,200, and this number is increasing all the time. More than 125 dwellings were erected in 1905, besides business blocks. There are two daily papers, four school houses that cost $76,000, and house forty teachers, three banks, with

![Image of Sugar Beet Pile at the Grand Junction Factory](image)

total deposits of more than $1,100,000, gas and electric light works, five lumber yards, two fruit associations, a cement block factory and a new smelter with a capacity of 500 tons of ore daily.

The Grand Junction sugar beet factory was the first built in the state. It was doubled in capacity in 1905, and has made a record of slicing an average of above 500 tons of beets per day through the season. The beets for the factory were grown in the valleys of the Grand river, above and below Grand Junction, the North Fork and Uncompahgre valleys.

**The Grand Junction Fruit Industry.**

The total shipments of Grand Junction fruit in 1905 were 1,700 cars, including carload shipments of twenty-two states, Canada and Mexico. The range of markets extended from California to Massachusetts and from Wisconsin to Texas. The returns to growers were a little over $1,000,000. The fruit industry in this section is however only in its infancy. There were set out in 1905 not less than 424,500 young trees.
The Grand Valley is a region of intensive farming. Figures secured by the Grand Junction chamber of commerce on the population of some of the farms showed that one tract of 160 acres near Palisade supported fifteen families and a total population of eighty people; one quarter section three miles east of Grand Junction has fifteen families, a total population of seventy-two, and one quarter section near Fruita has thirteen families and sixty people.

How Fruit Growing Pays.

The following figures, collected with great care and accuracy from results obtained in the year 1905, show more conclusively than pages of argument, that it pays to raise fruit about Grand Junction:

Robt. A. Orr sold $64.50 worth of apples from one tree. He also picked 1,500 boxes of winter apples from two acres and is holding the apples for $2 per box.

Hon A. B. Hoyt sold over $1,000 worth of apples off of one acre.

A. J. Harvey sold $4,427.50 worth of pears from three and three-fourths acres.

J. W. Goff sold $4,012 worth of pears from a little less than four and one-half acres.

Geo. E. Scroggins sold $720 worth of peaches from less than two-thirds of an acre.

C. Bower picked $58.50 worth of peaches from four trees and there are an average of about 130 trees on an acre.

It is safe to say that the average fruit tree in the Grand Valley will produce more money than will the average acre of corn, wheat or oats in the grain states.

Edw. Weckel raised an average of 62 bushels of fall wheat per acre, and an average of 144 bushels of oats.

Kiefer Bros. raised an average of 50 bushels spring wheat and eight tons of alfalfa hay per acre.

B. F. Hughes raised 20 bushels alfalfa seed per acre, worth at least $6 per bushel.

J. P. Phillips raised 36 tons of sugar beets per acre on a five-acre tract. Mainard & Leonard raised an average of 35 tons on five acres. Frank Nicholai raised an average of 30 tons on five acres.

F. A. Collins raised 12 tons of potatoes from one acre and sold them for $1.25 per hundred. Mrs. Johnson got $230 for the potatoes raised on one acre.

One tract of 160 acres, six miles northwest of Grand Junction, owned by Theo. W. Scott and others, one-half of which is in fruit and the balance used for agriculture, has for several years brought an average of $39,000 per annum.

Grand Junction has an active chamber of commerce, whose special function it is to give intending settlers a warm welcome and give them also every assistance in getting the land on which they can make the greatest success.

The arable valley of the Grand river extends west and south of Grand Junction clear into Utah. It is watered both by ditches from the river and from the side streams, some of which offer excellent fields for irrigation development by the construction of reservoirs to hold water for application upon the mesas high above the river but easily reached from the side streams.

At Mack, twenty miles west of Grand Junction, is the terminus of the new railroad to the Uintah reservation region, recently opened for settlement and which is more fully described in another chapter.
FIVE-YEAR OLD LOMBARD PLUM TREE, NEAR FRUITA.
Fruitá.

Fruitá is eleven miles west of Grand Junction, on the main line of the Denver & Rio Grande railroad, and is the second largest town in Mesa county, having a population of 863 by census taken in December, 1905. In the territory adjacent to Fruitá there is about 15,000 acres of land under the ditch and in cultivation, while to the north and west, within a radius of three to ten miles there is a vast area of the very best land in the state which is now above the ditch but which will come in under a high line canal to be built in the near future; much of this land is yet open to entry by homestead and the completion of the canal means that every foot of this land will be worth from $75.00 to $200.00 per acre. Fruit raising might properly be classed as the chief industry of this community but diversified farming is very successful and yields good returns for the money and labor expended. Alfalfa produces three and four crops per year, averaging five tons per acre which readily sells at an average price of $6.00 per ton, potatoes yield ten to fourteen tons per acre, selling at 75 cents to $1.50 per hundred, and are often marketed in time to enable the rancher to raise a crop of feed on the same ground before winter sets in. One rancher planted a crop of potatoes and in just three months from the day of planting, loaded his crop into the cars, receiving $100 per acre net for his three months work.

Strawberries grown at Fruitá ripen from ten days to two weeks earlier than in any other part of the state and therefore bring fancy prices, one instance being known of clear net profit of $137.50 off of one quarter of an acre of berries.

Sugar beets grow to perfection here and the absolute guarantee of a regular market at $3.00 per ton, make them a very desirable crop; in 1904, as high as 36 tons per acre were raised just west of Fruitá.

Fruits of all kinds do well and are big money makers but the apple is king in this particular locality, many orchards yielding crops that net the growers from $200.00 to $300.00 per acre per year. Apple orchards properly cared for will begin to bear the third year after setting.

Fruitá is pre-eminently a town of churches and schools, having four of the former, and with two large school buildings, a system of public and high schools not excelled in the state. Her new high school building completed in the spring of 1905, at a cost of $20,000, is considered by many as the handsomest and best equipped building of its kind on the western slope. A superintendent and eleven subordinate teachers are required to care for and instruct the 525 pupils in the two schools.

Fruitá has three weekly newspapers, three hotels, one bank and twenty-four mercantile establishments, one firm alone occupying 16,500 square feet of room in the conduct of its business and transacting a total yearly business of more than $200,000.00.

The postoffice receipts for the year 1905 have trebled over the previous year's business and on the first of December the office was put in the presidential class with a salary of $1,200 per annum.

The town of Fruitá has purchased water rights in the mountains on Pinon Mesa, twenty-three miles south of the town, voted bonds, etc., and expects to have a water system completed by the middle of the summer of 1906, which will give the town an abundance of the best and purest spring water.

Chapter XIII.

THE UPPER VALLEY OF THE GRAND RIVER—PALISADE—DEBEQUE—GRAND VALLEY—RIFLE—PLATEAU CREEK.

For a hundred miles above Grand Junction, the valley of the Grand river, now narrowing to canons, now widening to great empires of land, presents a number of pleasing locations for the man seeking a home. The
upper valley, between Palisade and Rifle has, like some locations in the North Fork Valley and the Uncompahgre, certain conditions of air currents that specially favor the production of the Elberta peach, protecting the delicate blooms from frost in the critical season of early spring. Palisade is one location which achieved particular fame in the season of 1905, because while many of the orchardists of the Western Slope lost their peach crop on account of frost and had to fall back on other fruits, such as apples and pears, which never failed, the Palisade peach trees as usual, were bending under the weight of Elbertas of unusually good quality. There is often a difference of ten degrees of temperature in cold weather in favor of Palisade as compared with Grand Junction, only twelve miles away.

The valley here is narrow, only from two to four miles wide, and on the north side it is flanked by sandstone cliff from 1,800 to 2,200 feet in height. This cliff reflects the sunlight and in this fact lies a great part of the secret of Palisade's immunity from frost; but there is another factor: A stiff breeze almost invariably blows down the canon of the Grand, and since the valley is so narrow the whole area is swept by the breeze. The air being constantly in motion does not remain in contact with the ground long enough to become cooled to the frost point. Farther down as the wind spreads over the constantly increasing width of the valley it loses its force.

A peach orchard comes into bearing at the age of four years. Raw land can be bought near Palisade for $200 to $400 an acre. At the end of four years if properly set to peaches it will certainly be worth $1,000 to $1,500 an acre.

C. S. Reed shipped 3,200 boxes of peaches from 1,000 3-year old trees or about seven acres. Of course not all orchards bring $1,000 even near Palisade; fine ones can be bought for as low as $500 or $600 an acre.

Twenty-two acres of orchard on the place of F. M. Burger, half a mile from Palisade, made the following record of production in the year 1905:

- Peaches, 8,500 boxes
- Apples, 1,359 boxes
- Pears, 907 boxes
- Plums, 200 boxes
- Cherries, 1,000 boxes

The gross receipts from the same area in 1904 aggregated $16,588, of which more than half was profit. J. L. Oliver, the pioneer fruit grower of that section, shipped from twenty acres in 1905, about thirteen carloads of fruit, which would make a pretty fair train. Some of his pears netted as high as $3.40 per box. Such instances might be multiplied almost indefinitely. Although the region of Palisade has been settling very rapidly, there are still many opportunities for homeseekers.

Debeque—Grand Valley—Rifle.

Above Palisade, the east-bound Denver & Rio Grande train traverses for many miles a narrow canon, from which it emerges at little below Debeque. From this point to Rifle, the Grand Valley lies wide between the hills, with the Book Cliffs raising their banded heights to the west and north, affording one of the most magnificent prospects in scenic Colorado. This valley is all under irrigation from the Grand river, the production of orchards and farms alike comparing favorably with that of the lower valley. The town of Grand Valley is the center of a strip about thirty miles long, which is watered by what is called the Wilcox ditch, starting just below Rifle and extending almost to Debeque, comprising some 10,000 acres of land. This land, suitable for fruit raising, sugar beets, alfalfa and farm crops is being settled up quite rapidly, with a very good class of improvements.

The farmers in this section enjoy great advantages in the way of ranges. On either side of them are enormous areas of mesa land, included in government forest reserves. Here, by paying a small fee per head, the farmer may turn his cattle in the summer, sure that they will be pastured in grass knee-deep, will rest in cool shades where flies do not
follow, will have only the purest mountain water to drink. In the fall the cattle are brought down from the hills, ready, with only a little feeding on alfalfa, to go on the market fit for the most exacting buyer. Most of the valley is believed to be underlaid with petroleum bearing shales, while there is abundant coal on either side.

Rifle, a town of 1,000 inhabitants, 75 miles above Grand Junction, is the shipping point for the great and only partly developed regions of northwestern Colorado, Routt and Rio Blanco counties. Some of the oldest orchards in this part of the state are in the valley of Rifle Creek, which flows into the Grande river from the north, at this point. Rifle and vicinity has attained fame also for potatoes, considerable acreages of early potatoes bringing large returns.

Antlers, lying midway between New Castle and Rifle, has recently taken on a new lease of life with the advent of capital in the hands of Mr. Foerster of Chicago, who has purchased several thousand acres and plans to found a colony of Germans. Grass Valley, which lies back of Antlers, occupies a sheltered nook in a great bend of the Hog-back range, whose steep ridges hem it in on the north, and northwest, thoroughly protecting it from storms. Grass Valley is watered from Rifle Creek, whose waters are led for several miles in a flume along the side of a canon, and from which a large reservoir with concrete dam is filled for use in late summer.

Newcastle, six miles above Antlers, has enormous coal deposits, employing a large force of miners the year around and making a good home market for many Grand Valley products.

Glenwood Springs.

At the head of this portion of the Grand Valley, twenty-eight miles above Rifle, is Glenwood Springs, the great resort of western Colorado. Here are hot springs of a magnitude unequalled in the world, magnificent hotels, a great bath house, a brick lined swimming pool, filled with warm waters from the springs, in which people bathe in the open air the year around. The surrounding mountains abound in grottoes and points of scenic interest. There is a vapor cave, in which nature herself established a perfect Turkish bath. North of Glenwood Springs lies the White River plateau, the best and most accessible hunting ground for big game, elk and deer, mountain lions and bears, grouse and prairie hens on the North Ameri-
can continent, while the streams teem with gamy trout. At Glenwood Springs, the Grand river enters a great canon, whose beauties hold the passengers on the trains spell-bound as they work along the bank of the river toward the upper valleys.

Plateau Valley.

Plateau Valley comprises a large area of land, lying along Plateau Creek in the drainage area of the Battlement Plateau, south of the Grand river. The lower course of this stream is in a deep canon emptying into the Grand river between Debeque and Palisade, but the upper reaches of the valley are wide and a large population is supported on the farms.

The Plateau Creek Valley is exceedingly fertile, immense crops of hay, oats, wheat and potatoes being raised, and the harder fruits do well. Surrounded on every side by a forest reserve, this region enjoys unusual grazing facilities, and the live stock interest is paramount. The Plateau Creek section is reached from Debeque, where a stage line to Collbran, the principal town of the valley, connects with the trains on the Denver & Rio Grande road. There are many opportunities in this valley for the homeseeker, both in lands already developed, and in lands which a moderate expenditure of money and work will bring under irrigation.

Chapter XIV.

THE UNDEVELOPED EMPIRE OF THE NORTHWEST—VALLEYS OF THE WHITE, BEAR AND SNAKE RIVERS—THE UINTAH RESERVATION.

Lying north of the Grand river and extending into Utah is a great scope of country, not penetrated by any railway lines, but reached now from stations along the Denver & Rio Grande railroad. This comprises Routt and Rio Blanco counties in Colorado and the Uintah reservation in Utah.

The White River country, "White River" being the English of "Rio Blanco" is the greatest big game country remaining on the American continent. The sportsman can leave his luxurious Pullman at Rifle and inside twenty-four hours may be in a primeval wilderness, where the deer and elk roam in large herds, through untouched forests of spruce and aspen, and over great meadows of grass two feet high. It is to this region that President Roosevelt, the foremost of American sportsmen, comes when he wants to have a really "bully" time. But though Rio Blanco county is proud of its hunting and fishing, it points with pride to the development of material resources which will in time replace the game.

The elevation of the White River Valley is 6,130 feet at Meeker and 4,970 feet at the western line of the county. The White River Valley for 120 miles is thickly settled with farmers and cattlemen. They are an intelligent class who without an exception are in comfortable circumstances. Hay, wheat and oats are the principal crops. Alfalfa and orchard grass, or alfalfa and timothy are sown together, the two cuttings averaging five tons to the acre. Much wheat is sown, the yield is usually from fifty to fifty-five bushels an acre, and it is made into first class flour at the Meeker roller process mills, from whence the people of both this and Routt counties are supplied with flour. The soil is a light sandy or gravelly loam, and with closer railroad facilities this would be an ideal apple and potato country.

The oldest orchards of apple, pear and cherry near Meeker have borne large crops of fruit every season for twelve consecutive years.

Cattle is the most important industry at present, the shipments being about 1,200 cars a year. Land along the river bottom and on the lower
beneches is all located. Improved farms within ten miles of Meeker can not be bought for less than from $50 to $100 an acre. In fact, there are few ranches for sale in Rio Blanco county. There are, however, a few large tracts of government land that can be watered at a cost of $5 to $10 an acre, but it will require capital to build these canals. White river has a fall of 20 to 40 feet to the mile, making it comparatively easy to put water on the higher lands.

The United States Reclamation Service has under consideration a project to build a canal from White river, at the mouth of Ute creek, which will water 125,000 acres of rich soil which now is only good grazing land.

Timber and Hydrocarbons.

Rio Blanco county has the heaviest forests and the largest coal fields in the state, and it is the greatest hydro-carbon field in the world. The hydro-carbons found include an excellent grade of jet, gilsonite, elaterite, sand-asphaltum, natural gas and crude petroleum. These are found in all parts of the county. High grade vanadium and uranium ores are found in this valley.

The Rangely or Raven Park oil field is the most perfect anticlinal, quaversal dome known to geologists, and is fifty times larger than the dome containing the most productive oil fields known—the Baku field in Russia. The Rangely field has seven wells, which at a shallow depth produce oil superior to the famed Tiona oil, in quantities of from five to twelve barrels each daily, and two companies are now trying to reach the 300-foot thick strata of pebble-conglomerate oil sands known to lie directly underneath the Colorado shales in this county, at a depth of nearly 3,000 feet. These natural resources will soon be developed by home capital and will make a market for all the products of northwestern Colorado.

Meeker, the county seat, has a population of 1,100. Its public school building, with the hot-water heating plant, cost $17,600. The town contains a roller-process flouring mill, an electric light plant, a $15,000 hotel, a $5,500 creamery, and is now building a gravity system of water works, costing $50,000. Rifle, on the Denver & Rio Grande, is the nearest railway point with daily stage connection.

Routt County.

From Meeker, stage lines which connect with the line to Rifle, run over the divide into the valley of Bear river. This stream has a large flow and runs in a narrow valley, so that in all cases the construction of an adequate ditch is a guarantee of plenty of water. At half a dozen points along Bear river canals have been constructed and the land is being taken by settlers. Being now remote from a railway, most of the land in Routt county is devoted to hay production, the hay in turn being used to maintain the great herds of cattle and horses that range on the mountains in the summer time. With improved markets, however, there is no doubt that Routt county lands will take their place with others in the production of all kinds of vegetables, sugar beets, potatoes and the hardier fruits.

On the Little Snake river, one of the principal tributaries of the Bear, work is in progress which will irrigate some 25,000 acres of excellent land, under the Carey act. This land will be sold to settlers at fifty cents an acre, the water right costing about $20, which price the settler pays in ten installments.

Steamboat Springs, in the eastern end of the county, is a remarkable health resort, having many groups of hot and cold springs of marked medicinal value. Deposits of coal of all grades from anthracite down, iron ore, onyx and marble, as well as promising gold camps, indicate that this end of Routt county will become in time one of the most highly developed sec-
tions of the state. This part of Routt county is best reached by stage from
Wolcott, a station on the Denver & Rio Grande railroad above Glenwood
Springs.

The Uintah Reservation.

One of the great events of the year 1905 was the opening to settlement
of the Uintah Reservation in eastern Utah. Twenty thousand land seek-
ers took part in the drawing for selections. Although it has been shown
that this reservation is not subject to development by "boom" methods, it is
attracting a steady stream of settlers. The Reclamation Service has re-
served a considerable area which it proposes to irrigate. The reservation
is rich in minerals, and has a good climate for fruit growing. It is best
reached by a railroad which connects with the Denver & Rio Grande at Mack,
a station west of Grand Junction.

Chapter XV.

THE HIGHER VALLEYS OF THE WESTERN SLOPE—EAGLE RIVER
VALLEY—THE ROARING FORK COUNTRY—THE GUNNISON
COUNTRY.

Nestling between the mountain ranges and running up almost to the
very slopes of the peaks whose tops are always covered with snow, are sev-
eral valleys of the Western Slope in which profitable farming has been de-
volved to a high degree. Life in these high valleys has its peculiar charms.
The soil is remarkably fertile. The water in the streams and even in the
ditches is soft and clear and pure and cold. It is never hot in the hottest
days of summer, and even though the mercury falls low in the bulb in win-
ter, the bright sunshine and still air keep the cold from being felt. These
locations, in which there is room for many new homes, should not be over-
looked by the homeseeker. The opportunities for making money in many
of these locations is hardly second to even the bonanza showing of the
orchard country.

Eagle River Valley.

After crossing the Continental Divide over Tennessee Pass, on the
broad gauge main line of the Denver & Rio Grande railroad, the traveler
finds himself gliding through a valley which widens with each mile, and
where on every side he can see evidences of the activity of new settlers
and old. It is a peculiarity of this valley, however, that the best lands and
farms cannot be seen from the car windows. Leaving the train at either
Eagle or Gypsum, the homeseeker will find that he has many opportunities
before him.

The crops raised in this valley are surprising even when one has been
reading records of irrigated land production from other parts of the state.
Oats very often are grown that run 115 bushels to the acre, and weigh
45 pounds to the bushel. Potatoes yield as high as 200 sacks (400 bushels)
to the acre, and are of surpassing quality at that. Sugar beets yield from
20 to 25 tons to the acre and carry a higher percentage of saccharine matter
than those grown in lower altitudes. In the season of 1905 beets were
raised by C. Schurm which tested 24.25 per cent sugar by government
analysis.

The farming portion of the Eagle River Valley is a continuous suc-
cession of gypsum hills with intervening valleys. These valleys have been
fertilized with the wash from the gypsum. When it is remembered that in
the East farmers pay high prices for gypsum to sprinkle thinly over their
lands as a fertilizer, the extraordinary richness of these lands will be ap-
preciated.
Raising Timothy.

Clear up the valley, almost to the foot of the final ridge of the Continental Divide, profitable farming is carried on. One of the novel sights to be seen from the station of Minturn on the Denver & Rio Grande, looking south, is the timothy meadows, covering hundreds of acres, on the steep slopes of the side hills. These meadows produce three to four tons of prime hay every summer, and this hay sells at from $12 to $14 per ton, baled and on board cars at Minturn. There are thousands of acres more to be had by the settler for taking it up, to irrigate which will cost about $20 an acre, and which can be made equally productive. Around Eagle and Gypsum are several mesas, which it will take the enlistment of capital or the cooperative efforts of a number of settlers to irrigate, but which when watered, at an expense of say $20 an acre, will equal in production any farms in the state, with rich, deep mellow soil, without even a pebble in it.

Besides the comparatively small area of farming lands, the Eagle River Valley contains 1,500,000 acres of fine grazing lands, the use of which is apportioned among the settlers, giving them a magnificent basis for the business of raising cattle and horses.

Roaring Fork and Crystal River Valleys.

From Glenwood Springs a branch of the Denver & Rio Grande railroad extends east and south, terminating at Aspen, one of the greatest silver mining camps of the world. This line traverses the valley of the Roaring Fork, and crosses the valley of Crystal river. This region boasts soil that is entirely free from alkali, no hailstorms, a perfect climate and very rich soil. Carbondale, a town located about the center of the valley of the Roaring Fork and at the mouth of the Crystal River Valley, is the principal shipping point. Up Crystal river are the Coal Basin mines, among the largest coal mines in Colorado, and further up are immense deposits of the finest marble in America, which will at some time be the basis of a great industry.

Mount Sopris, one of the most perfectly formed mountain peaks in Colorado, rises in one sheer, unbroken ascent from the level plain of the Crystal River Valley, and makes a scenic background of unrivalled beauty for this whole rich region, but the farmers of the Roaring Fork do not live upon scenery. The records of production in the valley speak for themselves.

Daniel McCarty in 1905 sowed 29 acres with Dalmeny New Market oats, a variety of grain which originated on the great Dalmeny estate of the Earl of Rosebery in Scotland, but which has been acclimated in the Roaring Fork Valley. The oats yielded 101 bushels per acre, the bushels averaging 52 pounds, and Mr. McCarty sold his crop to a Denver seed house at $1.50 per hundredweight, making a gross return per acre of $78.77.

C. H. Harris grew 150 tons of beets on five acres, a gross value per acre of $150.

George L. Young grew 68 bushels wheat to the acre and 85 bushels oats. J. S. Thomas raised 100 bushels of Silver Plume oats per acre, weighing 41 pounds to the bushel.

This region has won special fame through the efforts of the farmers to introduce special varieties of grain and potatoes. A leader in this movement is E. H. Grubb, one of the trustees of the Colorado State Agricultural College, who has brought to this state and acclimated some very valuable products. Mr. Grubb has paid especial attention to the development of the potato and produces what is called the Grubb Cafe potato. The entire output of Mr. Grubb's place for five years has been contracted by the Vanderbilt railway system, for use in the dining cars and hotels run on and in connection with the railway lines. Mr. Grubb gets a price for his product loaded on board cars at Carbondale, which makes his potato fields net
him about $100 per acre. In 1902 and 1903 Mr. Grubb's crop averaged 160
sacks per acre, and netted him $200 per acre, the price of potatoes being
unusually high at that time.
From Carbondale came the grand prize herd of cattle, which won at
the St. Louis World's Fair in competition with 52 carload lots of cattle
from all over the country. A noticeable feature of the cattle business in
this section is the entire absence of tuberculosis.
Recent ditch building operations have brought quite a good deal of new
land under irrigation in the vicinity of Carbondale, which can be purchased
by intending settlers.

Agriculture in Gunnison County.

The agricultural resources of Gunnison county, which is traversed by
the Marshall Pass line of the Denver & Rio Grande railroad, have never
been fully appreciated, because it has usually been credited with being strict-
ly a mining district. While the arable land is small in proportion to the
whole area of the county, still there are many thousands of acres of the
finest agricultural lands located on either bank of the Gunnison river; and

PRIZE-WINNING STEERS FROM CARBONDALE.

to the credit of the locality may be stated the fact that there is an over-
abundance of water for irrigation purposes. The closest cultivation cannot
exhaust the waters that flow in steady streams from God's own reservoirs,
the perpetual snows that, like a fleecy blanket, cover the hoary tops of sur-
rounding mountains. At present the principal crop is hay. This is caused
by the fact that hay is a good and very profitable crop, but the opportun-
ities for diversified farming are very encouraging. The berry crop will yet
be a source of tremendous profit. All berries grow luxuriantly—many
wild. Small grain is a sure crop with large yield. The dairy interests, now
in their infancy, are a source from which certain profitable returns are
made. The rich grasses of the mountains, and the vast free pasturage, in-
dicate that at an early date this county will possess immense interests in
this line. The market for the product is essentially a home one, and at present butter and cheese are imported in large shipments. The home butter product finds ready sale at from 30 to 35 cents per pound. This is a constantly increasing market, owing to the opening of new mining territory.

The poultry interests need a more careful cultivation in connection with diversified agriculture, and afford great opportunities for small farmers to embark in the cultivation of poultry products in connection with gardening, and heavily increase their incomes. At no time has the price of poultry, alive or dressed, fallen below twice the price in Eastern markets.

Gunnison, the commercial center of the district, is the county seat, a well-laid out town of 2,500 inhabitants, and is located on the main narrow gauge line of the Denver & Rio Grande railroad, 210 miles from Denver. It is also the junction of the Crested Butte branch of the same road. All lines of business are well represented; good schools, six churches, large water works, and an electric light plant. The town is in easy reach of the hot springs of Waunita and Cebolla, and is in close proximity to some of the most attractive scenery in the Rocky Mountains, that makes it a favorite objective point for tourists.

Chapter XVI.

VALLEYS OF THE SAN MIGUEL RIVER—SHENANDOAH OR PARADOX VALLEY—TEBEGUACHE PARK—THE PINON COLONY.

The San Miguel river, which rises in the Continental Divide south of the Uncompahgre Valley, is another of the streams of Colorado whose flow exceeds all the probable irrigation demands upon it. This valley is not traversed by any railway line, but the Rio Grande Southern railway, a part of the Denver & Rio Grande system, loops across the valley, and so gives ready access to a farming and fruit growing district of considerable prospective importance.

The two principal valleys along the San Miguel river are known as the Shenandoah Valley, formerly called Paradox valley, and Tebeguache park.

The Shenandoah Valley lies in the southern portion of Montrose and the northern part of San Miguel counties, Colorado, south of the San Miguel river, seventy miles southeasterly from Grand Junction, and thirty miles due westerly from Montrose. The arable lands in the valley embrace more than 100,000 acres. Its fertility and richness of soil, its healthfulness of climate and its grandeur of scenery stand without a superior anywhere. It lies near the 38th degree of latitude, being farther south than the world-renowned climate of Naples, Italy, or the southern portion of Maryland and the central part of Virginia and Kentucky. Its winters are genial, equable, and tempered with mildness; its summers fanned by the cooling breezes from the mountains which tower thousands of feet above it in the distance, rendering nights simply perfect for healthful, unbroken rest.

Soil and Fertility.

The soil of the Shenandoah Valley is of a reddish brown, averages in depth from seven to ten feet, down to "hard-pan," and is very rich and tractable. The whole valley is the scene of an ancient lake and the deposits precipitated have given to it the greatest fertility. The exceptional richness of the soil of this valley is attested by Professor A. E. Blount, formerly president of the State Agricultural College at Fort Collins, who has made an exhaustive examination and study of the soil, water supply and climate with reference to their effect on agricultural products and fruits.

The yearly rainfall averages less than eleven inches, or about one-fifth to one-quarter the amount precipitated in the eastern and northern states.
One can safely count on from 325 to 340 clear and fair days in the year. The mean annual temperature averages 58 degrees; that of the spring 51 degrees; summer 75 degrees; autumn 53 degrees, and winter 39 degrees.

It will be observed that the mean annual temperature of this valley is a happy medium between the hot south and the cold east and north, and its elevation above sea level (about 6,500 feet) makes it one of the delightful spots of the earth for mankind to dwell in.

Opening for Settlers.

The Shenandoah Irrigation and Land Company is constructing an extensive irrigation system, comprising two great reservoirs and more than one hundred miles of canals and ditches, and is now opening the valley to colonists. Some 6,000 acres are already under cultivation and two towns, Shenandoah and Norwood, have already been established.

Some of the Shenandoah Valley's best products are apples, peaches, pears, plums, prunes, nectarines, apricots, quinces, strawberries, raspberries, blackberries, gooseberries, currants, grapes, almonds, walnuts, wheat, oats, rye, barley, millet, alfalfa, clover, hops, celery, peanuts, sorghum, broomcorn, tobacco, sugar beets, honey, eggs, poultry, live stock, etc.

How to reach the Shenandoah.

Take the Denver & Rio Grande railroad, to the town of Ridgway, which is nearly midway between Montrose and Ouray. From Ridgway, the Rio Grande Southern lands one at Placerville, from Placerville, the stage road leads down the rushing San Miguel river fifteen miles to Norwood, the head of the Shenandoah Valley, thence down the valley itself.
Tebeguache Park—The Pinon Colony.

Tebeguache Park is the name applied to a large area of very fertile land which lies along the San Miguel river below the Shenandoah Valley. It is reached, like the Shenandoah, from Placerville.

Some years ago a co-operative colony was founded, to reclaim a large acreage in this park by means of a canal. Part of the colonists remained in the colony and worked on the canal, and part remained at their work in the cities, sending in monthly contributions. After a good many years of hard work, privation and disappointment, success crowned the efforts of the colonists, and water is now flowing through a large ditch. To reach the land, it was necessary to construct a long flume, supported by a high trestle, a photograph of which is used in the opening chapters of this book in illustrating some of the difficulties overcome by engineers in getting water on land in Colorado.

Tebeguache Park is fifteen miles in length with an average width of two to three miles and contains 30,000 acres. Its altitude is about 5,000 feet, and the soil and climate conditions favor fruit growing and the raising of all kinds of crops, including alfalfa and corn. The greater part of the lands in the park have been taken up, but there are still tracts adapted to fruit growing which may be homesteaded, and there are numerous other farms, already under irrigation, for which relinquishments may be purchased at moderate prices.

A new town, centrally located and called Nucla has been established at about the center of the valley. Though somewhat remote from the railway, the Pinon colony is blessed with a courageous and enterprising class of people and it is their intention to surround themselves with co-operative enterprises which will supply all the blessings of civilization, until such time as the productive ability of the region brings railway communication with the outside world. The Pinon colony offers probably the cheapest fruit and farming lands to be found, of equal quality, on the Western Slope.

Chapter XVII.

THE MONTEZUMA VALLEY.

The first inhabited section of Colorado was the extreme southwest corner of the state. Here, centuries before Columbus started on his voyage of discovery, existed the ancient civilization of the Cliff Dwellers. Their dwellings, perched in almost in accessible alcoves of the canyon walls, are in themselves evidence of the great fertility of the soil in this section, for the cliff dwellers were farmers, tilling the soil of the valleys below their homes, and carrying the products of their fields up miles of steep trails and ladders to their granaries in the rocks.

Right at the edge of the cliff dweller country lies the great Monte-

zuma Valley. No longer remote and inaccessible, but close to railway lines, it is becoming one of the profitable fruit and farming valleys of Colorado, and is attracting a steady stream of homeseekers.

The valley proper is an irregular shaped basin about thirty-five miles long and from five to fifteen miles in width, embracing an approximate area of about 350 square miles. It is encircled by the lofty ranges of the La Plata mountains on the east, on the north by the snow-capped peaks of the San Miguel Range, while to the south and the west the approach is open.

The surface is undulating with occasional rocky points and ridges and in places broken by natural water courses, with a general slope to the southwest; but for the greater part lying admirably for irrigation and cultivation. At the southern end of the valley is the Aztec Divide, which is a gradual slope separating the drainage of the McElmo canon from that
of the San Juan river. Lying to the south of this divide is the Ute and Navajo Indian Reservations, comprising about 300,000 acres of fine agricultural lands.

The Irrigation System.

In the Montezuma Valley proper there are about 60,000 acres of good irrigable lands, of which about 18,000 acres are now cultivated under a system of irrigating canals of approximately 125 miles in length. Further extensions of this system, with the construction of reservoirs will at no distant date cover the balance of these desirable lands and others which are easily susceptible to irrigation from the same general system.

The Dolores river, which supplies this valley with water for irrigation, is one of the largest and most constant streams of the Western Slope, rises in the San Miguel mountains and flows in a southerly direction until it reaches what is known as the "Big Bend," about two miles below the town of Dolores. The river then turns sharply to the northwest, flowing through rugged canons until it joins the Grand river about fifty miles above its junction with the Green river in Utah. Here at the "Big Bend," a tunnel nearly a mile in length, through solid rock, was blasted out, and the waters of the Dolores river diverted into the valley. This tunnel and its canals, now the property of private interests, will very shortly probably pass into the hands of an irrigation district composed of the land owners of the valley, and this means the enlargement of the system adequate to supply all the lands in the valley.

The altitude is about 6,000 feet, being the highest at the Dolores Divide and the lowest some fifteen miles below Cortez. The climate is unsurpassed by any in the west or in the state. Pulmonary, bronchial and malarial troubles are unknown, and it is safe to say that a more healthful community does not exist anywhere.

Different Soils of the Valley.

The soil of the valley is an alluvial deposit of great fertility and is of several kinds, a warm red sandy loam in the northern portion, with an underlying strata of white marl, and a clay loam of great depth and extraordinary fertility in the south; while along the sides a light sandy loam particularly adapted to the cultivation of fruits, grains and grasses. All the different soils of the valley are easily worked and irrigated with ease. Experiments thus far made demonstrate that the gray clay loam is undoubtedly better for grains while the northern part of the valley seems especially adapted for the raising of fruits and vegetables.

Wheat raising, always a profitable industry, is beginning to assume large proportions and especially that of winter wheat. This last season yields of over 60 bushels to the acre of winter wheat were made while 45 bushels of spring wheat to the acre was averaged by several farms. At the World's Fair in St. Louis and later at Portland Exposition, this county was successful in carrying off many of the best prizes on grains and fruits in competition with the most renowned sections of the United States. Oats, barley, rye, buckwheat and some varieties of corn, yield equally bountiful harvests, and it is not unusual for oats to thrash over 90 bushels to the acre, and their average weight being about 40 pounds to the bushel. Alfalfa the great forage crop of the west is grown here with great success. The yield under favorable conditions being from five to seven tons to the acre, and has and always will be a profitable crop to the farmer. During all the time this valley has been settled it has never been visited by destructive hail storms, or winds which are so often a menace to less favored sections, and there has never been a crop failure in its history.
The great mining sections of the San Juan, San Miguel, Telluride, Rico, La Plata and Silverton, lying to the north and east, produce no food products and furnish a reliable market for all the products of this valley at good prices; these mining districts while employing large numbers of men are yet in their infancy and will for all time be dependent upon the surrounding agricultural country for supplies.

School facilities exist in every part of the valley, each district having its school house, so that educational advantages are within the reach of all. Every school district in the county is free of debt and a large number of them have money ahead.

The roads are good, being hard and firm, and the soil is of such a nature as to practically prevent the accumulation of mud and mire. They are built on easy grades and hauling can be done on them at all seasons of the year.

Fruit Growing.

Fruit culture in the Montezuma Valley has proved to be one of its most profitable industries. The apples, peaches, pears, plums and apricots deserve special comment, being highly colored and of delicate flavor and find a ready market at fancy prices, being eagerly sought after by the fruit buyers of the eastern markets. The McElmo canon, with its famous Gallo-way and Hall orchards, is said to be the finest fruit section in the state, and its fruit easily captures first prize in all competitions.

Towns in the Valley.

Cortez is the county seat of Montezuma county, and is located in the heart of the Montezuma Valley upon an elevated plateau. From here every portion of the valley may be seen and the green farms stretching out in every direction make a most beautiful picture. Recently incorporated, the town has a most pleasing future, and with the development of the surrounding country is destined to be one of the best towns in the state. Its business interests at present consist of a newspaper, hotel, two drug stores, bank, livery stable, meat market, restaurant, and five general stores. A flour mill built in 1902, affords a steady wheat market, besides supplying the county with flour. The county courthouse is located in a handsome dressed stone building, as is also the public school. The Methodist and Congregational churches both have ministers here, while the various lodges are well represented, including the Woodmen, Yeomen, and K. of P's. Good openings exist for a general store, lumber yard, a new hotel, blacksmith and a shoe shop.

Mancos has a population of 750, is the commercial metropolis of the county, and is located on the Rio Grande Southern railroad. The Mancos Valley has been settled for about twenty-five years and has now nearly 5,000 acres in cultivation, principally in hay. Several saw mills are located in and near Mancos and give employment to large numbers of men. Very rich gold placer mines have been found on the Mancos river and the gold and silver mines on the Mancos side of the La Plata mountains are well known and have shipped many carloads of ore. Coal of the best quality is also mined here. From this point many tourists start on their horseback ride for the Mesa Verde to see the wonderful ruins of the ancient cliff dwellers. The town boasts of two newspapers, hotels, bank, livery stable, and one of the largest general merchandise stores in southwestern Colorado, besides other smaller general stores.

Dolores is a thriving town on the Rio Grande Southern, just above the “Big Bend” of the Dolores river, and on account of its position, will always command a good trade from the big valley. It now has a bank, large mercantile supply stores, newspaper, lumber yards, meat markets and
livery stable. Hogg and Rusts Spur are lumbering stations tributary to Dolores. A stage line running daily connects Dolores with Cortez and the Montezuma Valley.

Chapter XVIII.

DURANGO AND THE ANIMAS VALLEY.

Durango is located in what used to be a Ute Indian reservation, but piece by piece the Indians have relinquished their holdings to the invading tide of white settlers until now the reservation occupies only a small portion of its original area, and this portion lies off the railway and considerably west of Durango.

Besides the lands lying in Colorado, Durango has tributary to it a very fertile valley extending downward into New Mexico, through which a railway—a branch of the Denver & Rio Grande system—has recently been open for traffic. This district, known as the Farmington-Aztec country, is more particularly described in that portion of this pamphlet devoted especially to the New Mexico valleys along the lines of the Denver & Rio Grande system.

Durango is the best built city of its size in the west, being almost entirely constructed of brick and stone. It has 7,200 inhabitants, has an up-to-date street car system, electric lights, well kept streets, boulevards and a public park system. Its smelter, in completeness of equipment, stands second to only one other in the west. Its three banks carry deposits of $1,750,000 and the volume of commercial business for 1905 is estimated at $6,500,000. The home market of Durango includes not only the hundreds of men employed in the smelters, railways, machine shops, and factories, but the miners of the whole San Juan district, numbering thousands of families, in high mining camps into which every article of food has to be imported from the lower valleys.
Besides its precious metals, the San Juan country immediately around Durango contains some of the largest deposits of coal in the world, the coal being of the very highest quality. To reach these beds and transport the coal and coke to the Pacific coast is the aim of several railway systems whose engineers are working with Durango their direct aim.

**Apples, Grain and Hogs.**

The Durango country was the first in Colorado to get the world's attention to its apples. For years carload after carload of apples was sent out under this guarantee, that if the buyer could find one worm in a whole carload, he could take the lot for nothing. The apple export field now includes all parts of the United States.

There are about 60,000 acres of land under irrigation in the country right around Durango. The area which can be irrigated can easily be doubled, and a number of irrigation projects are completed, or nearly so, which afford good opportunities for the land seeker. Remarkable records have been made in the growing of farm crops. One man raised an average of 57 bushels of wheat per acre, over one whole quarter section of 160 acres. Another man had for two successive years a crop of 120 bushels of oats to the acre, while his neighbor raised 112 bushels. Experiments in the raising of sugar beets have shown that this section can equal if not exceed the performances of any other in the tonnage of beets to the acre and in the high percentage of saccharine matter.

Much attention has recently been given to hog raising on the farms about Durango. The home market of the city and the mining camps, takes about two carloads of fat hogs weekly, most of which are now brought in from the outside. Prof. Carlyle, one of the experts of the Colorado State Agricultural College, on a recent visit to the Durango section, declared that there was no place on earth which had better advantages for this branch of farming than this country about Durango.

**Rubber Extraction.**

After long continued experiments in the extraction of rubber from the twigs and roots of the Colorado rubber plant, a factory has been established at Durango for the extraction and refining of the gum. The plant now grows profusely over hundreds of square miles of open land about Durango, and its gathering will give employment to a small army of people. It has been found that this plant can be profitably cultivated, and a few years from now is likely to see a large area of Durango lands devoted to rubber growing.

**Chapter XIX.**

**ARCHULETA COUNTY.**

Archuleta county comprises the upper valleys of the San Juan river, just west of the Continental Divide. The Durango line of the Denver & Rio Grande railroad, forced south into New Mexico by the roughness of the country, in order to get through the mountains, for a time passed this rich territory by, so that its development has not been in proportion to its merits. The recent construction of branch lines up the valleys to the center of the county has stimulated settlement and development.

The altitude of Archuleta county is from 5,000 to 8,000 feet, its territory extends from the dividing ridge in the Continental Divide west sixty miles; and from the boundary line separating Colorado and New Mexico north thirty miles, and contains about 1,800 miles of territory. Population, 3,000. The public school system is good, and there are church advantages equal to more populous localities.
The general plan of the country is a slope or inclination toward the southwest, so that the sun embraces its surface with a greater ardor and during more time than it does on other inclinations, thus obviating the cooling influence of high elevation by the glowing warmth of the sun's rays striking a surface presented directly to it.

Farming.

There are 300,000 acres of good agricultural land in the county. The good land adjoining Pagosa Springs is mostly taken, but three or four miles away are hundreds of acres that are waiting the thrifty husbandman's coming, are open to homestead entry. Beginning about four miles from Pagosa Springs and running south fifteen miles and west thirty miles lies that portion of the Ute reservation recently thrown open to settlement. It is traversed by the San Juan, Navajo and Piedra rivers, and is among the most fertile of Colorado's agricultural land.

Archuleta is the heaviest timbered county in the state. Many sawmills are in operation here. The Pagosa Lumber Company at Pagosa Junction, and the New Mexico Lumber Company at Edith are immense establishments, employing about 300 men each. Building material is cheap, and good lumber may be had at $10 a thousand.

There is hardly a spot on earth where the advantages for stock raising are equaled. The canons, aside from proving splendid shelter for stock, are carpeted with nutritious grasses, and while there may be an occasional winter that cattle will need some hay to go over to spring in good shape, hay is cheap and in good supply. Horses and sheep thrive here and there is a good market.

Being surrounded by the wonderfully rich San Juan mining district, which will be filled with a great number of miners who will consume all the produce that is raised here for many years to come the agriculturist is blessed with an excellent market for his produce.

There is ample room and opportunity here for the farmer of limited means, or for the one of wealth, who desires to enlarge his operations.

Pagosa Springs.

The Pagosa Springs branch connects with the main line of the Denver & Rio Grande railroad at Pagosa Junction, and a ride of thirty-one miles through the finest timber belt in the state, lands the passenger at Pagosa Springs, the county seat of Archuleta county. The chief attraction at Pagosa Springs is the hot spring—the hottest mineral spring in the world. Remarkable cures in sciatica and chronic rheumatism and blood disease have been made at this spring. The temperature of the Hot Springs of Arkansas is 140 degrees, at the Sprudel spring, Carlsbad, Germany, 153 degrees, and at Pagosa Springs, 165 degrees.

There are already good accommodations at Pagosa Springs, but recently the attention of capital has been called to the great opportunities for building up a large health and pleasure resort, and plans are in contemplation for a fine hotel and sanitarium and very extensive improvements at the springs. With these additions to its attractions, Pagosa Springs will afford a greatly increased home market for the products of the farms in that vicinity.
Part II.

VALLEYS OF NORTHERN NEW MEXICO

Chapter I.

THE FARMINGTON-AZTEC SECTION.

The valleys traversed by the Denver & Rio Grande railroad and its branches in New Mexico are climatically almost identical with the Colorado valleys, having the same high altitude, rich soil and cool summers which go to make fruit perfection. These valleys send their products largely to Colorado markets. One of the most prominent and highly developed regions in New Mexico is the Farmington-Aztec section, situated in the eastern northeastern section of the state. This section is principally tributary, commercially, to Durango, Colo., and its sole railway outlet is by a line which runs northward and connects with the Denver & Rio Grande narrow gauge line at Durango. This line is broad gauge, and was put in operation in the summer of 1905.

San Juan county, which comprises this region, is about 75 miles square and is watered by four rivers, the San Juan, the Pino, the Animas and the La Plata. These rivers furnish an abundance of water for all the tillable lands at all seasons of the year. The valleys along these rivers vary in width from two to five miles, containing fine, rich and fertile land. Irrigation canals and ditches have been constructed to irrigate the lands in the immediate valleys of these four rivers, but the mesas or upper valleys are yet without ditches, and there is only about one-fifth of the tillable land under irrigation, the remaining four-fifths lying idle and vacant government land, subject to homestead and desert land entries. These lands will produce almost any kind of crops common to a semi-tropical climate, as well as to the temperate zone.

San Juan county, New Mexico, is an American county, composed of enterprising American people, with good schools and churches and good society. It has about 8,000 people and about 1,000 voters, and its assessed valuation at a very low estimate is about $1,000,000, with taxation at a rate of less than two and one-half per cent.

The two principal towns are Aztec and Farmington. There are a number of other small villages with postoffices and stores of general merchandise throughout the country, including Cedar Hill, Flora Vista, La Plata, Blanco, Largo, Bloomfield, Fruitland, Jewett and Pendleton. Aztec and Farmington each have a population of between 400 and 500 people. Aztec is the county seat and in the center of the population and business industries of the county, while Farmington is located at the junction of the Animas and La Plata rivers with the San Juan and at the terminus of the Denver & Rio Grande railroad.

Live Stock and Farming.

This region produces almost every kind of crop, such as corn, wheat, oats, rye, barley, cane, millet, timothy, clover and alfalfa, potatoes, sweet potatoes, cabbage, onions, beans, beets, sugar beets, turnips, celery, water melons, cantaloupes and pumpkins. The yields of the leading crops range about as follows: Corn, 30 to 60 bushels; oats, 40 to 90 bushels; wheat, 25 to 40 bushels; rye, 15 to 40 bushels; barley, 30 to 60 bushels; alfalfa, under fair irrigation, yields three crops per year, with a total average of from four to six tons per acre. The yield of vegetables is enormous; potatoes, onions, cabbage, melons, cantaloupes, tomatoes and sugar beets yield in abundance and of the very finest quality.
This is a fine country for live stock; the winters are mild and open, with but little snow, and live stock requires but very little feed during the winter, and in most winters cattle go through in good condition on the open range. From 70,000 to 100,000 head of sheep are fed in the valleys each winter and from 10,000 to 20,000 head of cattle. The production of chickens and turkeys, eggs and butter, bees and honey forms a very important and profitable industry. Eggs sell currently in the home market at from 25 cents to 40 cents per dozen; average, 30 cents to 35 cents per dozen the year round. Butter ranges in price from 25 cents to 40 cents and will average in price 30 cents the year round. Chickens range in price from $4.00 to $6.00 per dozen, and turkeys from $1.50 to $2.00 each, the supply is never equal to the demand and the prices are always cash.

**Apple Growing.**

San Juan county winter apples are sought after by fruit shippers for the export trade. The firms of Porter Brothers & Co. of Chicago and Newhall Brothers of Michigan, and several other wholesale commission houses, for the past several years have had their representatives in this county buying the fruit on the trees, furnishing their own boxes, and packing and shipping this fruit at their own expense, paying from one cent to two cents per pound at the packing tables in the orchards.

During the fall of 1900 there were shipped from this county alone more than one hundred carloads of winter apples, most of which went to Chicago to be sorted and repacked and reshipped for the export trade. Fruit buyers say that San Juan county fruit has fewer worms, stands shipping and keeps longer than any other fruit they can buy. The most marketable of the winter apples are the Grimes Golden, the Missouri Pippin, the Jonathan, Roman Beauty, White Winter Pearmain, the Baldwin, the Ben Davis, the Missouri Black and some other varieties.

San Juan county produces not only apples but the finest quality of peaches, pears, plums, prunes, apricots, nectarines, quinces and all of the smaller fruits and berries known to this climate, in abundance.

San Juan county has even more sunshine than any of the counties of Colorado, lying as it does well down toward the perpetually arid region of Arizona. One effect of this has been shown in tests in beet growing. Beets from this district have more saccharine matter, directly in proportion with the increased sunshine, and it is believed that in a few years, one or more factories will furnish the farmers here with a ready home market for a most profitable crop.

The water supply of San Juan county is abundant, everlasting and inexhaustible. The sources of the great rivers, the Animas and the San Juan, are in the highest mountain peaks of Colorado in the lands of perpetual snow. The water is also of the purest and most healthful quality, coming from the melting snows of the mountain.

There are from 75 to 80 irrigating ditches and canals in operation in San Juan county and out of this entire number there is but one special corporation ditch, which sells and rents water to the people. All the other ditches and canals are owned by the farmers and land owners themselves, so that when a man buys a farm he buys the water right with it and owns the water right absolutely in fee simple. The only expense attached to such a water right is that each individual shareholder or water owner does his pro rata share of the work towards keeping the ditch or canal in proper repair.

In the great La Plata Valley, and in that vast agricultural region known as "the meadows," the Government Reclamation Service has been making very extensive surveys and investigations during the past 18 months for an extensive system of storage reservoirs to be constructed by the government, and that when completed will reclaim and bring under irrigation from 75,000 to 100,000 acres of the finest agricultural and fruit land to be found in the West.
Besides its agricultural interests, San Juan county has very extensive coal deposits. These have been developed to a point which shows them to be of very great value, including the very finest coking coal, and the building of a railway through to the Pacific Coast will make this the center of a very busy coal traffic.

Climate and Tourist Attractions.

Although this region enjoys cool summer weather, it has very open and warm winters. There is almost no snow at all, and there have been winters when men worked in the fields every working day from November to April. The altitude varies from 5,100 to 5,800 feet.

Apart from its attractions to homeseekers, San Juan county will become one of the tourist points of the West, not only because of its delightful climate but because it is the center of the ancient country of the Cliff Dwellers. Their ancient homes, towers and forts are to be found along all the valleys, with the corn, in some instances, remaining in the granaries just as they left it when, for some mysterious reason, either pestilence, war or enforced migration, they left their homes in the remote past and vanished into oblivion, leaving neither posterity nor inscribed history to give a clue to the antiquarians of to-day.

Chapter II.

RIO ARRIBA, TAOS AND SANTA FE COUNTIES, NEW MEXICO.

This section of the United States is one of the most interesting to either the tourist or homeseeker. Here exist the villages established by the first Mexican settlers, with their adobe houses, arranged around a central square, facing inward so as to present a solid blank wall of adobe to invading hostiles, the old churches, rich with interior adornments, and hundreds of years old, ancient vineyards, with knotty and gnarled vines centuries old and still bearing profusely, old orchards, stone walled fields of grain that have yielded continuous crops for centuries.

Here are the reservations of the agricultural, blanket-weaving Indians—the Jicarilla Apaches, the Navajoes, the Santa Claras—tribes that never went on the warpath, but who were peacefully raising crops, tending their herds of sheep and goats and weaving blankets before ever the white men came into their country.

Here, too, are the Pueblo Indians, tribes that live in cities built of stone and adobe, story upon story, with strange inner temples where sacred fires have been burning since before the time of Columbus. These Indians live, and have lived for a thousand years, by tilling the soil and by their herds of sheep and goats.

Two Railway Lines.

Two branches of the Denver & Rio Grande railroad penetrate this section. The narrow gauge line from Antonito to Durango makes a loop across the north end of Rio Arriba county. This county, for which this is the sole railway outlet, contains an immense area of land which is capable of irrigation and cultivation. The Mexicans were poor engineers, running their canals along only the easiest grades, leaving thousands of acres which can still be easily watered, and leaving unused scores of first class reservoir sites. The owners of the private land grants welcome white settlers and sell lands generally as cheaply as though obtained directly from the government. There are many small valleys, surrounded by inexhaustible free cattle ranges, where homes can be made by industry and enterprise. The Jicarilla Apache reservation, which is likely soon to be thrown open to settlement, contains many thousands of acres of fine land, easily irrigated.
The valley of the Brazos river, with the county seat of Tierra Amarilla and its adjoining settlement of Park View, is tributary to the Denver & Rio Grande system. Here are picturesque valleys capable of great development. Along this branch of the Denver & Rio Grande system are several lumber camps, employing thousands of men, and making a handy home market. At Monero is a large coal mining interest. The adjacent mountains are productive in gold, silver and turquoise.

The present inhabitants of northern New Mexico are all peaceable, quiet, industrious people, and settlers find their presence valuable in furnishing a constant supply of labor at a low price. In fact, many of the New Mexico Indians journey every year to the beet fields of Colorado, where they furnish some of the most satisfactory labor.

Down the Santa Fe Branch.

From Antonito a branch of the Denver & Rio Grande system extends south to Santa Fe, the ancient capital of the West, and the oldest city on the American continent outside of Old Mexico. The railway, starting about 30 miles west of the valley of the Rio Grande river, which at this point flows in a very deep canon, finally joins the stream and follows along its banks, until it climbs the hill into Santa Fe, which is on a side stream.

More than 40,000 people now live in this territory, and 400,000 more can be brought in without crowding. Most of the present population is Mexican or Indian, but all through their farms are scattered the holdings of more enterprising Americans who have realized the possibilities of the region, have established farms and planted orchards, and are now making enormous profits out of their foresight. This region is said by experts to produce the most perfect grapes of any section of the United States, exceeding in quality even the product of the famous vineyards of California, and equalling those wineries in yield. Peaches, plums, apricots, pears and apples yield abundantly and failures are absolutely unknown.

Along this line there are a number of famous hot springs. At Wamsley’s and at Ojo Caliente, reached from stations on the Denver & Rio Grande road, there are good hotels and bathing facilities. Some of the well attested cures from these springs are almost miraculous. There are other springs, as yet undeveloped, one group near Taos Pueblo, and the other up the Pueblo river. From this line only are accessible the cave and cliff dwellings of the Pajarito National Park, 35 miles west of Santa Fe. Here, amid settings of wonderful scenery, are 20,000 caves, formerly occupied by a prehistoric people, with thousands of communal buildings, some of more than 1,200 rooms, now in ruins.

The principal streams of this region are the Rio Grande and its tributaries, the Chama, the Petaca, the Vallecitos, the San Antonio, the Los Pinos, the Puerco, the El Rito and the Tusas.

In the El Rito Valley, located on the Lobato land grant, on one of the branches of the Chama river, private capital is engaged in developing a large area and is bringing in a good many settlers of a high grade. El Rito, about 20 miles west of Barranca, New Mexico, and five miles north of Espanola. It is about 60 miles south of the southern line of Colorado and south of the San Luis. While the altitude is about 5,000 to 6,500 feet, the latitude being so far south (the same latitude as Arkansas, Tennessee and North Carolina) the climate is very mild, even and invigorating. The temperature rarely reaches lower than eight degrees above zero during the coldest winter, nor higher than 91 degrees above zero during the hottest weather in summer.

A large system of irrigation ditches and a large reservoir of three and a half billion gallons—more than 10,000 acre-feet—capacity, are now under construction, which will make possible the development of this valley into a high state of productivity. At El Rito there has just been completed the
Territorial Industrial School at a cost of $65,000. On this grant there are also numerous tracts of fine saw timber.

The water for domestic purposes is obtained in wells at from 20 to 60 feet deep, and is soft and pure with no alkali. Abundance of wood for fuel purposes is convenient to this valley. A sawmill of a capacity of 20,000 feet per day is now in operation at El Rito, furnishing cheap building material.

The soil is a dark red, rich, sandy loam of great depth, particularly adapted to fruit culture, with the remarkable climate. In this El Rito valley there are about 40,000 acres of irrigable land. The county contains 4,000,000 acres, population 16,500, and its total wealth is $6,500,000; 500,000 sheep, 50,000 head of cattle, 25,000 goats graze in this county, and the export is 2,000,000 pounds of wool per annum, or one-tenth the entire product of the territory; taxation is very low and farm labor is cheap and plentiful.

Rio Arriba county seems likely to take a leading part as a producer of gold, copper, silver, lead, iron, coal and mica. Enough development work has already been done to demonstrate this fact. Near Abiquiu and within the western part of the Lobato grant there are outcroppings of extensive beds of fine coking coal, which for experimental purposes has been coked in the open air, but as yet these veins have not been opened up for commercial purposes. Copper has been mined on this grant for years and some of the purest copper in the territory shipped. There are immense ledges of sandstone impregnated with copper, which makes a fine concentrating proposition and deposits and ledges of copper-bearing rock from which assays of from 18 to 50 per cent copper have been obtained. Along the Chama river, a few miles above Abiquiu, are extensive placer mines. These deposits of auriferous sand and gravel are situated on either side of the river, as well as in the river bed, pannings from which run from 35 cents to $3.00 per cubic yard, and there are several hundred acres that will run from $2.00 to $6.00 gold per cubic yard.

Taos—Espanola—Santa Fe

The Taos Valley, reached from Embudo and Tres Piedras stations on the Denver & Rio Grande railroad, was at one time called the granary of New Mexico, and is one of the most beautiful agricultural valleys in the world. Only about one-half of the irrigable land in this valley is now under water, though there is a surplus in the streams. At the head of the Taos river are the mining camps of Hopewell and Bromide, while the old established camp of Elizabethtown is just across the range.

The Espanola Valley is another of the ancient settlements into which new blood is about to flow. Rich with orchards and vineyards, dotted with the spires of churches, it has enjoyed an unbroken prosperity for centuries. From Espanola to where it reaches Santa Fe, the Rio Grande railroad traverses a country already partly developed, and which is capable of very much greater productiveness.

At Santa Fe, which has been called the Rome of America, are crowded many points of national interest, the new and the old together, the fine new stone capitol of the territory of New Mexico almost touching the old church, 400 years old, in which worship has never ceased from the time its first mud walls were raised, partly to shelter the sacred images of the Catholic worship and partly to afford fortress-like protection to the people of the little frontier settlement of which this was the citadel. On every side of Santa Fe are the old settlements, and on every side the enterprising newcomer sees where new ditches can be built, where reservoirs can be constructed. where the land, already productive, can be made to yield four and five fold.

At Santa Fe the government of the territory of New Mexico maintains a well-equipped bureau of immigration, where seekers after information may obtain correct information regarding any of the different sections of the territory.
OPPORTUNITIES IN COLORADO

The field of agricultural opportunity in Colorado is as wide as the state. The expert horticulturist may raise magnificent grapes in the New Mexico valleys. He may raise peaches or apples in any of the western valleys. He will find an unsupplied demand for quinces and such specialties. If small fruits are in his line, there are twenty valleys open for him, with good markets and good crops assured. He can get land close to one of the larger cities and haul his products to market in his own wagon, or in the remotest valleys can put them on the Rio Grande train and have them whisked to a quick market in one of the mining camps.

The hog man may seek a moderate altitude, raise hogs on alfalfa and finish them off on sugar beets and native grains, or he may take land in one of the higher valleys, where field peas flourish, and raise and fatten great droves of hogs on acres which need hardly any attention to perfect their crops.

To the dairyman the field is equally wide. Although milk cows do better on alfalfa than on anything else, although the cool climate favors the butter maker, although there are mountain slopes upon which herds of dairy cattle can find free pasture through the summer months, although Colorado imports butter and butter imitations literarily by the carload, the dairying business in the state is only in its infancy.

The same may be said of the poultry business. Chickens and turkeys and ducks all do well in Colorado. Eggs are always high-priced, chickens always in demand. All kinds of poultry food, alfalfa, roots, grains, etc., can be produced cheaper on irrigated farms, and what few chicken ranches have been established are paying their owners large profits.

Horses and Cattle.

The horse breeder will find that horses raised in the valleys of Colorado, ranged on the mountain sides, possess qualities of blood and wind that mark their superiority wherever taken. The federal government has recognized this fact, and is spending $25,000 a year in Colorado in experiments designed to produce a typical American carriage horse.

The man whom fat stock delights will find conditions in Colorado peculiarly favorable for raising and fattening cattle and sheep. The grassy slopes of the mountains pasture immense herds of cattle in summer. The time was when Colorado cattle, scruffy in breed and grass fed, were shipped east to the corn lots to be “finished.” Fewer and fewer go each year in this shape. The breeds have been improved until most Colorado range cattle rank as high grades. From the mountains the grown steers go to the feed lots, and there, with alfalfa and roots, with peas and barley and sometimes a little corn, with beet pulp from which the sugar has been extracted, and with wild hay, they are finished into steers that take prizes both in fat stock shows and in selling pens.

If the new comer wants to try some new thing, “high altitude” potatoes may interest him. It has been found that potatoes raised under certain conditions in high altitudes have a texture and flavor which puts them in an epicurean class all by themselves. A business is being developed in this line that promises as distinctive results as followed the marketing of Rocky Ford canteloupes and Grand Junction peaches.

There is a demand for nurserymen, for breeders of thoroughbred stock of all kinds, for men to open mills and creameries and canning factories. Each few miles of fertile valley has to have its trading point, and the development of the businesses of these towns offers an inviting field to enterprise and capital.
Getting Land in Colorado.

The land in the fertile valleys shown on this map is of several sorts and classes. First are the government lands, still open for settlement, either under the pre-emption laws, in the case of the old Indian reservations, or the homestead laws in the rest of the state. The open lands, for the most part, are in the remoter valleys, above present irrigating canals. There are some good claims still to be had, under irrigation, where water rights can be purchased. Every once in a while some man surprises an old irrigated community by discovering a little bench or alcove or side valley, left by the earlier settlers, into which he can get water from some side stream, or by making a reservoir, and so gets for almost nothing but his own labor lands which are worth a hundred dollars or more an acre.

In the Uncompahgre Valley, where the Reclamation Service is at work, there is land which will be opened for homesteading, in units regulated by the richness of the soil, varying from 40 to 160 acres. The land a settler is given by the government, but his water right he buys and pays for in ten annual instalments without interest.

The vast bulk of lands readily available for settlers in Colorado is under private ownership; usually by the same people that own the canals and water rights. But this does not make these lands difficult for the men of small means to obtain. Confident in the ability of the lands to pay for themselves, the companies that own them generally offer them to actual settlers for a small payment down, and give long time for the balance.

The lands offered for sale are by no means in the remoter valleys. As the price of land has risen in Colorado, irrigation projects have been made financially practicable that at first were out of the question. High-line ditches have been run, and reservoirs built to water lands directly bordering on orchards that had been highly productive for years. Then, too, intensive farming has gradually resulted in the breaking up of large holdings of alfalfa and grass lands into small tracts, which are now on the market.

Distance from a railway, the value of the crop that can be raised, the home market and the water rights are the four elements upon which the value of land in Colorado depends.

Easy to Get Started.

A consideration which should not be lost sight of is that it costs less in work and money for a settler to get started in Colorado than in any other section.

In the first place, Colorado has an OUTDOOR CLIMATE, winter and summer. A log hut, with a dirt roof, which could not be made suitable shelter for livestock in an eastern winter, has warmly and adequately sheltered many a family starting on a Colorado farm. In the same way, less provision need be made for teams and cows and chickens. There is little of the time that the family has to be shut into the two or three rooms of a small cabin.

In the second place, most Colorado land needs very little clearing before it is ready for crop. An arid climate allows only brush and straggling grass to grow, so that the work of breaking is never severe.

In the third place, most of these valleys are surrounded by forests, so that lumber and poles, firewood and fence posts, can be had for the hauling. There is no part of the state where coal is not abundant and cheap. Profits begin to come in right away. Irrigation knows no off years. The soil will never be more fertile than just as it rolls off the plow that turns it for the first time. If the settler goes in for fruit, he can raise beets or other hoed crops between the rows of trees until the trees are ready to bear. Grain and potatoes grow luxuriantly on the upturned sod.

Every day is a working day. When a man has the whole year to work in he can accomplish much more himself than though he had to stop for snow in winter, rain in summer and mud at all times of year.
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