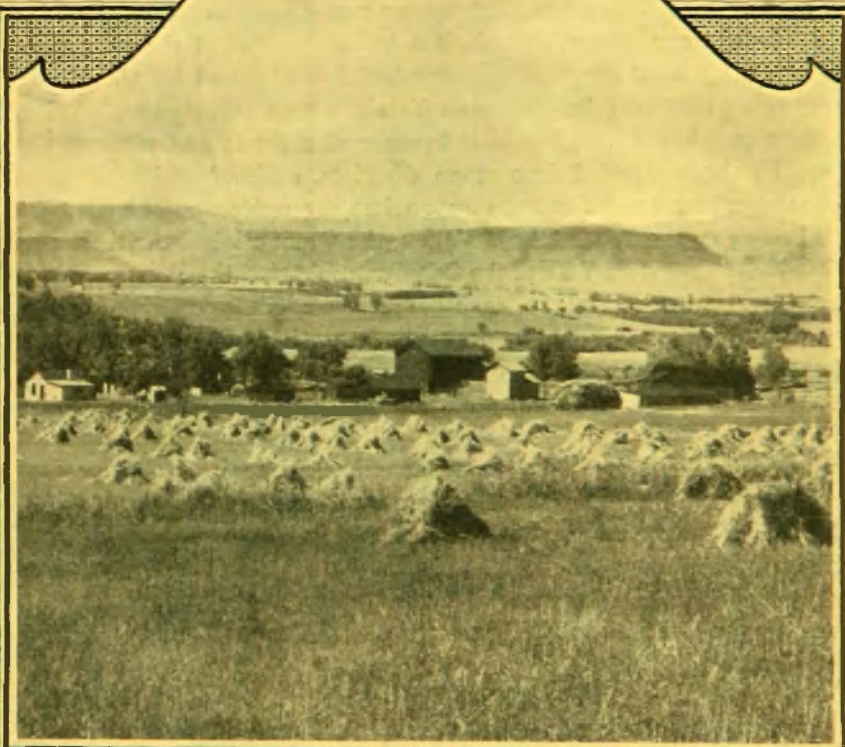


# Colorado



The  
Western Slope

LIBRARY OF THE  
STATE AGRICULTURAL COLLEGE  
FORT COLLINS, COLO.

## FOREWORD

THE Colorado State Board of Immigration was established by act of the Legislature in 1909 for the purpose of advancing, through legitimate publicity and in other ways, the development of agriculture, mining, manufacturing and other industries in Colorado. Its field has expanded year by year until at the present time it is the recognized authority of the state on all questions within its scope.

The contour, climatic conditions and industries of the state vary widely because of the natural boundaries established by the Rocky mountains, and in order that each district may be treated with reference to conditions peculiar to it because of altitude and climate, the state has been divided into seven districts, each of which includes counties where conditions are approximately uniform. The districts are known as the South Platte Valley, the Great Plains, the Arkansas Valley, the San Luis Valley, the San Juan District, the Western Slope and the Northwest Plateau, each being treated in a separate booklet.

Every effort is made to secure information of an authoritative character and to avoid the optimistic predictions of the enthusiast. It is the purpose of this department to furnish to the prospective citizen of Colorado authentic information concerning conditions in any part of the state. The department has no land to sell, nor does it represent, directly or indirectly, anyone having land to sell.

The department invites correspondence from anyone who is thinking of making Colorado his home. No state in the Union offers better opportunities for those of limited means if they possess energy, industry and intelligence. The truth about Colorado needs no exaggeration.

EDWARD D. FOSTER, *Commissioner of Immigration.*

TOLBERT R. INGRAM, *Deputy and Statistician.*

### STATE BOARD OF IMMIGRATION

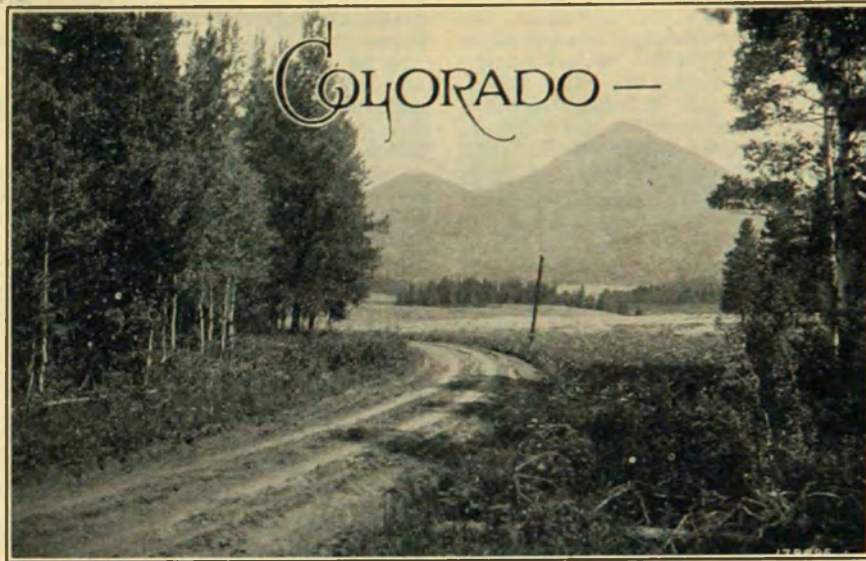
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COLORADO lies almost in the center of that part of the United States west of the Mississippi river basin and in the east-central part of the Rocky Mountain region. The center of the state is approximately 1,500 miles west of the Atlantic seaboard, 800 miles east of the Pacific, 150 miles south of the Canadian border and 475 miles north of the Mexican border, measured by air lines due east and west and north and south. The state is bounded on the west by Utah, on the north by Wyoming and Nebraska, on the east by Kansas and Nebraska, and on the south by New Mexico and a small strip of the Oklahoma panhandle.

The state contains the most elevated portions of the Rocky mountains in the United States, though there are higher altitudes in both California and Washington than are found in Colorado. The United States geological survey assigns to two peaks in Lake county the honor of being the highest points in the state. These are Mount Elbert and Mount Massive, each with an altitude of 14,402 feet.

The highest point in the United States is Mount Whitney, California, 14,501 feet. Colorado has the highest mean altitude of any state, only about one-fourth of its area being below 5,000 feet, while approximately two-thirds of it ranges from 6,000 to 14,000 feet. It has at least 44 peaks that tow-

er 14,000 feet or higher above sea level, and approximately 1,000 having altitudes of more than 10,000 feet. The eastern two-fifths of the state lies in the Great Plains, and is a level or broken prairie, crossed by the valleys of the Arkansas and South Platte rivers and their numerous tributaries, and rising gradually from the state line westward to the foothills of the Rockies. The main range of the Rocky mountains passes north and south through the central part of the state, with numerous secondary ranges and spurs running in all directions, giving Colorado the greatest extent and widest variety of mountain scenery found in any state. The western part lies in the Pacific watershed and contains the largest streams in the state. Its surface is much more broken than that of the eastern part, embracing numerous high mesas and fertile, narrow agricultural valleys, and rising to the rugged and wonderfully picturesque San Juan mountains in the southwest. In outline the state is almost a perfect rectangle, having the most regular form of any state in the Union. It ranks seventh in size, with a land area of 66,341,120 acres or 103,658 square miles. Its water area is 290 square miles, making the total area 103,948 square miles. It is more than twelve times as large as the state of Massachusetts, nearly twice as large as Iowa and about the same

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size as New York, Ohio, Connecticut and New Hampshire combined. Its extreme length east and west is about 387 miles, or 37 miles more than the distance from New York City to Portland, Maine, and its width approximately 276 miles, about the same as the distance from Chicago to St. Louis.

**Natural Divisions**—As a result of its large size and the extreme irregularity of its surface the state is divided into a number of districts that show considerable variation in topography, soil, climatic conditions, industries and products. The most important of these are the following: The non-irrigated prairie section in the eastern part of the state, popularly referred to as "Eastern Colorado;" the South Platte valley, in the north and northeast; the Arkansas valley, extending through the southern part of the eastern half of the state; the San Luis valley, a vast basin, the bed of an ancient lake, lying in the south-central part of the state, almost wholly surrounded by mountain ranges; the San Juan basin, in the southwest; the valleys of the Colorado river and numerous tributary streams in the central-western part; the rugged plateau districts drained by the White and Yampa (Bear) rivers, in the northwest; the mountainous, mineral-bearing districts, extending in a broad, irregular belt across the central part of the state from Wyoming to the New Mexico line; and the mountain park districts, chief of which are North park, in Jackson county; Middle park, in Grand county; and South park in Park county. These last are very similar to the San Luis valley, but all have higher average altitudes and consequently enjoy less intensive agricultural development. In topography and climatic conditions the South Platte and Arkansas valleys are very similar to the non-irrigated sections of eastern Colorado, but by reason of the fact that a large supply of water is available in these valleys for irrigation they enjoy the most extensive agricultural development found in the state and produce a wider range and greater yield of crops than the non-irrigated districts. The San Luis valley has very light rainfall, but an abundant water supply for irrigation is derived from the Rio Grande del Norte and its tributaries. The average altitude is more than 7,500 feet, which limits the range of crops grown, but the fertile soil, abundant water supply and good climate make this valley one of the finest general farming and stockraising

districts in the state. The San Juan basin is a region of from moderate to heavy rainfall, having a considerable area of irrigated land in the river valleys and much good non-irrigated agricultural land on the higher mesas. This is also an excellent stockraising district. The valleys of the Colorado, Gunnison, Uncompahgre and other rivers and smaller streams of the Colorado river basin contain the principal fruit-growing areas of the state, as well as a large amount of the fine general agricultural land. The rainfall in this area is generally inadequate for farming without irrigation, but the water supply is adequate for all land that can be irrigated, and recently farming without irrigation has been undertaken successfully on some of the higher mesa lands, where rainfall is somewhat heavier than in the valleys. The northwest part of the state is less developed than any other district, chiefly because of lack of transportation facilities, but it contains some of the best agricultural and grazing land in Colorado. The mineral area is very extensive, but the principal producing areas are somewhat restricted and are outlined in data published elsewhere in this volume.

**Early History**—That part of Colorado lying east of the Rocky mountains was included in the territory acquired by purchase from France in 1803, usually referred to as the Louisiana purchase. All the southeastern part of the state, lying south of the Arkansas river, and a narrow strip extending north through the mountain district into Wyoming, was claimed by the state of Texas and became a part of the United States when Texas was annexed in 1845. This included a considerable amount of the territory belonging to the Louisiana Purchase, but the controversy regarding the northern boundary of Texas was settled long before Colorado became a state. The western part of what is now Colorado and an additional strip lying west and south of the Rio Grande del Norte was ceded to the United States by Mexico in 1848, following the war with Mexico. The actual settlement of Colorado began with the discovery of gold in the summer of 1858, at which time most of the eastern half of the state was included in Kansas territory under the name of Arapahoe county. The boundaries of the county were very imperfectly defined, and the settlers in the new gold camps, moreover, objected to being governed by a set of territorial officials

400 miles away. They appealed to the federal government for the organization of a new state or territorial government, and finally, in February, 1861, the territory of Colorado was organized, about a month after statehood had been conferred upon the territory of Kansas. The boundaries of the territory were substantially the same as are those of the state at present. In 1876 Colorado was admitted to the Union as the thirty-eighth state.

**Population**—The population of Colorado has increased steadily and rapidly since its actual settlement began immediately following the discovery of gold in 1858. The following table shows its growth from 1860 to the present time, as compared with the growth for the entire country, all figures being taken from census reports:

Year	Population	Pct. of Increase Over Previous Census	Pct. of Increase For United States
1860.....	34,277	....	....
1870.....	39,864	16.3	22.6
1880.....	194,327	387.5	30.1
1890.....	413,249	112.7	25.5
1900.....	539,700	30.6	20.7
1910.....	799,024	48.0	21.0
1920.....	939,629	17.6	14.9
1925 (est.)..	1,040,442	....	....
1926 (est.)..	1,058,722	....	....
1927 (est.)..	1,074,000	....	....
1928 (est.)..	1,090,000	....	....

During the two decades following 1860 the population was confined largely to the mining districts and to the city of Denver. The cities of Pueblo, Colorado Springs and Trinidad did not make their appearance in the census population statistics until 1880, when the three had a combined population of less than 10,000. During the early 80s the period of agricultural development began and the decade ending with 1890 was in many ways the most important in the history of the state. During that period 24 new counties were organized and scores of new towns were laid out in the agricultural districts. The percentage of increase in population dropped off materially in the succeeding decades, but remained considerably greater than the percentage of increase for the country at large. In 1910 the density of population for the state was 7.7 per square mile, as compared with 30.9 for the United States. Denver county ranked first in this respect, with 3,679, and Dolores and Jackson counties were tied for last place, with 0.6. The 1920 census showed the density of population for

the state to be 9.06 per square mile. Denver still holds first place in this respect, with 4,422.26, and Jackson county ranks last, with 0.81. The rural population in 1910, including all people except those living in incorporated places of 2,500 population or more each, was 394,184, or 49.3 per cent of the total. The rural population as shown by the 1920 census was 486,370, or 51.76 per cent of the total. In 1910 the foreign-born white population was 15.9 per cent of the total, the principal foreign nationalities then being, in the order named, as follows: German, Italian, Russian, Austrian, English, Swedish, Canadian, Irish and Scotch. In 1920 the foreign-born white population was 12.4 per cent of the total, the principal foreign nationalities being Russian, Italian, German, Mexican and Swedish.

**Land Classification**—Colorado is the seventh state in the Union in size, with a land area of 66,341,120 acres. It is divided into 63 counties, of which Denver county is the smallest, with an area of 37,120 acres, and Las Animas county the largest, with 3,077,760 acres. The records of the several county assessors showed a total of 36,583,930 acres of patented land on the tax rolls at the beginning of 1929, including railroad rights of way and town and city lots. The records of the federal and state governments at the same time showed a total of 24,053,473 acres of non-patented land, including national forests, homestead areas, national parks and monuments, Indian lands and state land. This leaves 5,673,717 acres of land not definitely classified as to ownership, but none of which is on the tax rolls. Included in this is state land that has been sold but not yet fully paid for and for that reason not yet patented, government land temporarily withdrawn from homestead entry and homestead land that has been filed upon but not yet proved up and for that reason not yet on the tax rolls. In six counties—Clear Creek, Costilla, Gilpin, Hinsdale, Lake and San Juan—the amount of land shown in the various classifications is slightly greater than the area of the counties, as shown by available government surveys. These discrepancies are no doubt due to inaccuracies in surveys, as considerable portions of the mountainous areas of the state have not yet been accurately surveyed, and each of these counties contains mountainous areas.

Of the area in private ownership in

1928, the tax commission classifies 35,163,103 acres as agricultural land. This is equal to about 53 per cent of the entire land area of the state. The area classified as agricultural land is divided as follows:

	Acres
Fruit land.....	20,515
Irrigated land.....	2,239,622
Natural hay land.....	330,990
Dry farming land.....	11,392,036
Grazing land.....	21,179,940
Total .....	35,163,103

These classifications contain some waste and desert areas of no real value for agricultural purposes. The term "dry farming" applies to tillable land that is non-irrigated. Some of the grazing land eventually will be placed under cultivation. The remaining privately owned area consists mostly of patented mineral land, railroad rights of way and town and city lots.

**Drainage and Water Supply**—Containing, as it does, the most elevated portions of the Rocky mountains, Colorado is quite naturally the source of many of the important streams in the west. The Continental Divide crosses the west-central part of the state, and the streams in the western part flow to the Pacific, while those in the east find their way to the Gulf of Mexico. The streams of the western slope are all tributaries of the Colorado river, from which the state derives its name. The Colorado (Grand) river, the largest stream in the state, has its source in Grand county. The Green river, which was regarded as one of the two streams forming the Colorado when the upper course of the Colorado was called the Grand river, flows through the northwestern corner of Moffat county. The northwestern corner of the state is drained by tributaries of the Green river, chief of which are the Yampa (Bear) and White rivers. The principal tributary of the Colorado river is the Gunnison, which has its source in Gunnison county and enters the Colorado at the city of Grand Junction. The southwestern corner of the state is drained by the San Juan and Dolores rivers, both tributaries of the Colorado. The south-central part of the state, including the San Luis valley, is drained by the Río Grande del Norte. The southeastern part is drained by the Arkansas river and its tributaries, and the northeastern part by the South Platte river. The North Platte river has its headwaters in Jackson county and unites with the South Platte in Nebraska to form the Platte river. The Republican river, a tribu-

tary of the Kansas, drains a considerable area in the eastern part of the state. These streams have hundreds of small tributaries, most of which have their sources in the mountains where the snowfall is heavy. They furnish the principal water supply for irrigation and for the development of hydro-electric power. Water for domestic purposes is obtained principally from these streams, but in most agricultural sections wells are utilized as a secondary source of domestic water supply. Most of these wells are pumped, but there is a well defined artesian belt in the San Luis valley and artesian water is found in numerous other places. There are more than 8,000 artesian wells in the state, fully two-thirds of which are in the San Luis valley.

**National Forests**—Fifteen national forests located wholly within the state and two lying partially within its boundaries comprise about 20 per cent of the state's area. These forests embrace 13,278,233 acres, mostly in Colorado, and are administered by the department of agriculture of the federal government.

**National Parks and Monuments**—Two national parks and four national monuments are located within the boundaries of Colorado and one national monument on the boundary between Colorado and Utah. Five of these parks and monuments are administered by the national park service of the department of the interior, and two monuments, being within the national forests, are administered by the department of agriculture. Their names, locations and areas are as follows:

Rocky Mountain national park, located in the north middle part of the state, in Larimer, Boulder and Grand counties, and embracing an area of about 373 square miles, or 241,738 acres. Of the total, 9,113 acres is private or state-owned land.

Mesa Verde national park, located in southwestern Colorado in Montezuma county, and embracing about 77 square miles, or 48,966 acres.

Holy Cross national monument, located in Eagle county, and embracing 1,392 acres.

Colorado national monument, located in Mesa county near Grand Junction, and embracing 13,883 acres.

Yucca House national monument, located in the southwestern part of the state in Montezuma county, and embracing 9.6 acres.

Wheeler national monument, located

in Mineral county, and embracing 300 acres.

Hovenweep national monument, located on the Colorado-Utah boundary in Montezuma county, and embracing 285.8 acres.

**Climatological Data**—As a result of its great size and the extreme irregularity of its surface, the climate of Colorado is wonderfully varied and cannot be described in detail here. The mean annual temperature for the entire state is 44.3 degrees, but it varies from about 31 degrees in some of the higher mountain districts to 54 degrees in parts of the Arkansas valley. The average annual precipitation for the state is 17.54 inches, but there is also a very wide range here in the different sections of the state. The lowest average precipitation is about 6.5 inches, in the San Luis valley, and the highest about 40 inches in the San Juan mountains. The delightful and wonderful healthful qualities of Colorado's climate are well known throughout the country. Rainfall is comparatively light in all sections of the state and the percentage of sunshine is very high. The range of temperature is wide. The amount of moisture in the air is always low and as a result the unpleasant effects of extremely low or high temperatures are greatly modified. The relative annual humidity ranges from 45 to 60 per cent, being lower than in any other state except Arizona and Nevada. The high altitude is another important factor in governing climatic conditions in the state. As

a result of this high altitude and the correspondingly low atmospheric pressure, impurities in the air are quickly dissipated and the depressing effects common at low altitudes, especially during periods of warm, damp weather, are entirely foreign to this state.

**Railroads, Telegraph and Telephone Facilities**—There are 30 railroad companies represented in Colorado, operating an aggregate of 5,005.22 miles of main line track. Every county in the state has some railroad mileage, though the railroad facilities of some counties, particularly in the northwestern and southwestern parts of the state, are inadequate. The total value of railroad property in the state as returned by the state tax commission for the year 1926 was \$158,898,470.

Ninety-six telephone companies operate in the state, owning an aggregate total of 484,689 miles of telephone line. This is an increase of more than 150,000 miles over the amount reported to the tax commission in 1921. The valuation of all property owned by these companies, as returned by the state tax commission for purposes of taxation in 1927, was \$14,313,420. Most of these companies are small and operate in but one or two counties. The Mountain States Telephone & Telegraph company operates its own lines in all but one county in the state, Baca, and has a total of 471,106 miles of line in Colorado. Four telegraph companies operate a total of 28,306 miles of line in the state.

## THE WESTERN SLOPE



**T**HE district described in this booklet lies in the central western part of the state, on the western slope of the main range of the Rocky mountains, and is drained by the Colorado river and its tributaries. This stream formerly was called the Grand river

and a large part of the district still is known as the Grand valley. The Colorado is the largest stream in Colorado, and its tributaries in this district include the Eagle, Gunnison and Roaring Fork, all streams of considerable size, carrying generally an abundant supply

of water the year round. This is one of the best watered districts in the state, with plenty of water for the irrigation of all land that lies so that it can be irrigated at reasonable cost. Limited areas in the valleys of the Colorado and of the Uncompahgre river, a tributary of the Gunnison, are irrigated and are among the most productive agricultural areas in the state as well as being the most important fruit districts. Small areas also are irrigated in the valley of the Gunnison river and the valleys of a few smaller streams. This portion of Colorado is chiefly a broken plateau, whose streams usually have cut comparatively narrow valleys considerably below the high mesa lands between them. The lands susceptible of irrigation are found for the most part in these river valleys, though some of the higher mesa lands have been watered by the construction of more expensive irrigation systems. Parts of the district rise to altitudes of 14,000 feet and above at the summit of the Continental Divide.

The counties in the district are Delta, Garfield, Gunnison, Hinsdale, Mesa and Montrose. Their combined areas amount to 8,886,400 acres, or a little more than the combined areas of the states of New Jersey, Connecticut and Rhode Island. Gunnison county, the largest county in the district, has an area of 2,034,560 acres, a little more than the combined areas of Rhode Island and Delaware.

There is much mountainous and broken land in the district and perhaps not to exceed one-fifth of the total area can ever be cultivated. There is, however, a considerable amount of land susceptible of cultivation that has never been broken and the area under cultivation is increasing slowly each year.

The rainfall in this district is widely varied, but generally on the valley lands susceptible of cultivation it is so light that farming without irrigation is not profitable. There is some farming without irrigation on the mesa lands in Mesa, Delta and Montrose counties, and the amount of such cultivated non-irrigated land is increasing steadily each year. However, it may be said in a general way that farming without irrigation in this district is not profitable except on very limited areas. There is an abundance of water for irrigation of all land that lies so that water can be put upon it at reasonable cost, but much of the mesa land lies so high above the streams

that the cost of putting water upon it is prohibitive.

There are two great irrigation systems in this district constructed by the United States Reclamation service for the irrigation of arid lands in Mesa, Montrose and Delta counties. These two projects, which eventually will bring under irrigation approximately 135,000 acres, will represent a total investment of more than \$11,000,000. At the present time they are maintaining a population of 6,971 on the farms, and including the towns within the limits of the districts the population is well above 15,000.

The Uncompahgre project takes water by diversion from the Uncompahgre river, supplemented by water from the Gunnison river diverted through the Gunnison tunnel into the Uncompahgre valley. The area irrigated under this project lies in Montrose and Delta counties at an elevation of 4,900 feet above sea level at the lower end ranging up to 6,400 feet at the upper end. A total of 60,818 acres was farmed under the project in 1928 and total crop production was valued at \$2,265,000. There are only a few acres of government homestead land available in the project, but privately owned land may be secured by purchase. The United States government exercises no restrictions relative to the sale of such privately owned land except that water rights for such land can not be granted in excess of 160 irrigable acres.

The Grand Valley project secures water by direct diversion from the Colorado river. The area irrigated under this project lies in Mesa county, near Grand Junction, at an elevation of 4,900 feet. There is no government land open for filing in the district, but there is some privately owned land which may be acquired with a small cash payment and liberal terms on the balance.

The district is especially noted for its production of orchard fruits, chiefly apples and peaches. It is the most important fruit producing district in the state. Pears have been produced rather extensively in recent years and have proved a profitable crop, being grown chiefly in Mesa county. Some apricots and a few plums and cherries are grown, while small fruits do well but are not extensively grown. Besides being an excellent fruit district it is also unsurpassed for general farming and stockraising. The production of



feed crops is large and range is perhaps more abundant here than in any district in Colorado. Alfalfa is grown more extensively than any other single crop, but potatoes is the principal money crop next to fruit. Sugar beets are grown rather extensively for factories located at Grand Junction and Delta.

Valuable mineral deposits are found

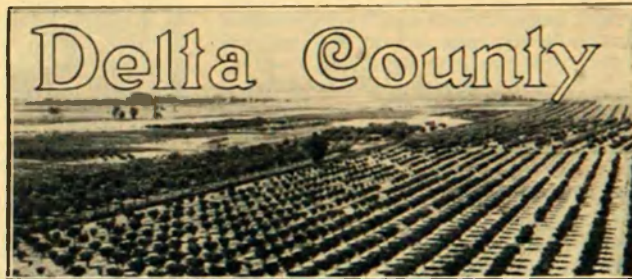
here. There is some production of coal and ores of the radium group have been shipped for a good many years. This district is perhaps the richest in the United States in carnotite ores, which yield vanadium and small quantities of radium. They are found chiefly in western Montrose county, where they have been mined for more than ten years.

**GENERAL Description**—Delta county lies in the western part of the state and includes a considerable part of the agricultural area known as the Uncompahgre valley. It is of an irregular triangular outline, with an extreme length east

and west across the base of 48 miles. Its area is 768,640 acres, or about 85,000 acres more than that of the state of Rhode Island. The surface is irregular, being a high plateau rising into mountain peaks in the northeast and extending into level or broken valleys in the south and southeast. The altitude varies from about 4,750 feet at the point where the Gunnison river crosses the western boundary to more than 9,000 feet on the Grand mesa, in the northern part.

**Early History**—This territory lies in the large tract of land that was occupied by the Ute Indians during the early period of the settlement of Colorado. By treaty made between those Indians and the United States the Indians were moved to the Uinta reservation in Utah in 1881 and settlers soon began to flock into the valley lands throughout this district. The first known white settler was a Frenchman, Antoine Roubideaux, who built a trading post near the present site of the town of Delta about 1840. Gunnison's expedition traveled down the Uncompahgre river in 1853. No settlements of importance were made, however, until after the removal of the Ute Indians above referred to. Delta county was organized in 1883 from a part of Gunnison county.

**Topography and Soil**—The valleys of the Gunnison and Uncompahgre rivers are from 3 to 12 miles wide, with ex-



tensive sloping table lands lying further back both north and south. The North Fork and Surface Creek valleys both contain much excellent agricultural land. The soil in all of these valleys is extremely fertile, but shows a very wide range of composition and texture. The soil on the table lands is principally a sandy loam, fertile and readily susceptible to irrigation. A detailed survey of the Uncompahgre valley area, made by the bureau of soils of the department of agriculture in 1910 and published in 1912, describes the soils of a considerable part of the agricultural lands in this country.

**Population**—The estimated population in 1925 was 13,668, compared with 13,688 in 1910, the decrease being one-tenth of 1 per cent. In 1900 the population was 5,487. The increase during the decade ending in 1910 was due largely to agricultural development which followed the completion of the government reclamation project by which water was diverted from the Gunnison river for the irrigation of lands in the Uncompahgre valley. The very slight decrease in population between 1910 and 1925 was due largely to the consolidation of small fruit farms into larger agricultural units. The foreign-born white population in 1920 was 5.9 per cent of the total, compared with 7.7 per cent in 1910. The principal foreign nationalities are Canadian, German, English and Rus-

sian. The population is all rural, except that in the city of Delta, the only incorporated place having more than 2,500 people.

**Drainage and Water Supply**—The Gunnison river flows through the southern part of the county and with its tributaries furnishes the drainage and water supply. The principal tributaries here are the Uncompahgre, North Fork and Tongue creek. Water for irrigation is obtained principally from the North Fork and its tributaries for the lands along this stream; from Tongue creek and its tributaries for lands directly north and east of Delta, and from the Gunnison river by way of the tunnel and diversion canal for the irrigation of the Uncompahgre valley lands. Water for domestic purposes in the agricultural districts is obtained largely from wells and is found at depths ranging from 8 to 25 feet.

**Industries**—The principal industries are general farming, including stock-raising; dairying and fruitgrowing. Coal mining is followed to a considerable extent. There has been some drilling for oil and gas, though development in this direction has not yet revealed any commercial oil field. The census of 1919 reported 24 manufacturing establishments in the county, with an average of 35 wage-earners and an output of products valued at \$344,786.

**Crops**—The principal crops in the order of their importance are fruits, hay, sugar beets, wheat, corn, potatoes, oats and barley. The farm value of all crops in 1928 was \$2,602,330, of which \$802,120 was in fruits, \$776,780 in hay, \$213,400 in sugar beets, \$166,390 in wheat, \$108,000 in corn, \$69,970 in potatoes, \$56,870 in oats and \$51,320 in barley. Of 52,657 acres under cultivation in 1928, 9.69 per cent was in spring wheat, 7.98 per cent in corn, 7.45 per cent in oats, 4.16 per cent in barley and 2.3 per cent in potatoes.

Average yields, in bushels, per acre over a five-year period were: Spring wheat, 28.88 bushels irrigated and 9.83 bushels non-irrigated; corn, 35.14 bushels irrigated and 12.90 bushels non-irrigated; barley, 39.89 bushels irrigated and 16.68 bushels non-irrigated; potatoes, 126.11 bushels irrigated and 39.49 bushels non-irrigated.

**Mineral Resources**—The known minerals are clays, coal, oil shale, petroleum, gypsum, natural gas, sand, sandstone, granite and other building stone.

The county produced 68,745 tons of coal in 1928 and 87,883 tons in 1927.

**Timber**—There is considerable timber within the national forest areas, on the Grand mesa and elsewhere, principally yellow pine and spruce.

**Land Classification**—In 1928 there was 139,783 acres, or 18.1 per cent of the total area in private ownership. The county assessor listed 8,589 acres as fruit land; 56,370 acres as irrigated land; 23,939 acres as dry farming land; 47,103 acres as grazing land, the remainder being railway rights-of-way, town lots, etc. There was 166,300 acres of government land open to homesteaders; 189,952 acres in national forests, and 272,605 acres unclassified as to ownership.

**Transportation**—A standard gauge line of the Denver & Rio Grande Western railroad passes through the southwestern corner of the county by way of the town of Delta, following in a general way the valleys of the Uncompahgre and Gunnison rivers. A branch of this road runs northeast from Delta up the North Fork of the Gunnison river by way of Hotchkiss and Paonia to the coal mining towns of Bowie in Delta, and Somerset in Gunnison county.

**Highways**—The principal state highway is that leading northwest through the county from Montrose by way of Delta to Grand Junction. At Delta this connects with another state highway running up the valley of the North Fork of the Gunnison and thence east and south to a connection with the Rainbow Route at Gunnison. A state highway leads north from this near Austin to Collbran in Mesa county and thence west to a connection with the Pikes Peak or Ocean-to-Ocean highway. Another road leads south from Hotchkiss to a connection with the Rainbow Route at Sapinero. These and numerous imperfectly improved county highways provide a good highway system for the county. The county has 118 miles of state highways, of which 53 miles are treated with gravel and sand clay, and 475 miles of county roads.

**Educational**—The county is divided into 20 school districts in which are 48 schools, employing 154 teachers. The schools include six senior high schools, five junior high schools, 15 elementary schools and 22 rural schools. The average daily attendance in 1928 was 3,182. The average annual per capita cost of the public schools, based



on average attendance, was \$107.92, which compares with an average for the state of \$135.82, including county high schools.

**Climatological Data**—The rainfall in this county is comparatively light except in the high altitudes on the Grand mesa. In the Uncompahgre valley it averages less than 10 inches annually; in Surface Creek and North Fork valleys it averages perhaps 12 inches. On the Grand mesa, which contains the headwaters of some of the streams supplying water for irrigation in this county, the average annual rainfall is as high as 30 inches. The climate ranks with the best in Colorado. The summers are comparatively long and warm and the winters are short and open. The normal annual precipitation at Delta is 8.2 inches, and normal annual mean temperature is 49.8 degrees. The average number of days between killing frosts is 140, the last in the spring usually occurring between April 14 and June 3, and the first in the fall between September 11 and October 19.

**Tourist Attractions**—The completion of the Rainbow Route has greatly increased automobile tourist travel to this district. The Grand mesa is a popular section for tourists. It has more than 100 lakes and reservoirs, most of which may be reached by good automobile roads, and afford some of the finest fishing to be found in the West. Most of the smaller streams in the county also are well supplied with trout.

**Cities and Towns**—There are six incorporated towns in the county, Delta, the county seat, at the mouth of the Uncompahgre river, being the largest and most important. It is the distributing point for a large territory. Its elevation is 4,980 feet and its population is 2,800. The others are Paonia,

elevation 5,696 feet, population 1,000; Orchard City, elevation 5,300 feet, population 550; Hotchkiss, elevation 5,369 feet, population 700; Crawford, elevation 6,800 feet, population 250; Cedaredge, elevation 6,100 feet, population 500. Postoffices, other than the incorporated towns, are Austin, Bowie, Cory, Eckert and Read.

**Rank**—Among the 63 counties in the state Delta ranks thirty-ninth in area, nineteenth in population, twenty-ninth in assessed valuation, fourteenth in bank deposits, fifteenth in agricultural values, thirteenth in dairy cattle value, sixteenth in range cattle value, eleventh in value of sheep, nineteenth in value of swine, twelfth in coal mining, thirtieth in manufacturing and miles of railroad, thirty-seventh in miles of highway and sixteenth in the number of automobiles.

**Banks**—There are seven banks in the county, two each at Hotchkiss and Paonia and one each at Cedaredge, Crawford and Delta. The total deposits on December 31, 1928, were \$2,882,051.

**Special Opportunities**—The principal opportunities offered here are for agricultural development and such commercial development in the various towns as will follow the growth of the rural agricultural population. There are valuable coal deposits that are yet only partially developed. The oil shale deposits in the northern part of the county are attracting considerable attention. There has also been intermittent prospecting for oil and some drilling for a great many years.

**Commercial Organizations**—Commercial organizations in the county are the Commercial Club, Cedaredge; Chamber of Commerce, Delta; North Fork Chamber of Commerce, Hotchkiss; Chamber of Commerce, Paonia

## GENERAL Description

—Garfield county lies in the western part of Colorado and includes a part of the Grand valley, which is one of the best known agricultural and fruit raising districts in the state. It is of an extremely irregular rectangular outline,

110 miles long east and west, and about 50 miles wide at the eastern end. Its



width at the western end, where it touches the state of Utah, is about 20

miles. Its area is 1,988,480 acres, or a little more than the combined areas of the states of Delaware and Rhode Island. The surface is extremely irregular, varying in altitude from about 4,700 feet at the western boundary to over 13,000 feet at the summits of some of the peaks in the northeastern part.

**Early History**—The territory now included in Garfield county was originally occupied by the Ute Indians. There was no development worthy of note until after 1881, when the Indians were by treaty removed from this part of Colorado to western Utah. Small prospecting parties explored the mountainous areas, both north and south of the Colorado river, about 1879 and built a fort not far from the present site of Glenwood Springs, which they called Fort Defiance. Glenwood Springs was first settled in 1882. The county was organized in 1883 from a part of Summit county and was named in honor of President James A. Garfield, whose assassination occurred a short time before it was created. A part of it was taken to form Rio Blanco county in 1889.

**Topography and Soil**—The principal agricultural territory in the county is in the valleys of the Colorado river and the Roaring Fork river, one of its tributaries. There is some good agricultural land on the high plateaus both north and south of the Colorado, and a large amount of good grazing land. The soil of the valleys is extremely fertile and under irrigation produces some of the best crop yields in Colorado. There is no detailed soil survey available. The surface rises abruptly north of the Colorado river, in the eastern part of the county, into the rugged mountain area included in the White River national forest.

**Population**—The estimated population in 1925 was 9,304, compared with 10,144 in 1910, the decrease being 8.3 per cent. In 1900 the population was 5,835. The large increase in population for the decade ending with 1910 was due principally to the settlement of orchard lands in the Colorado river basin, while the slight decrease in the decade ending in 1920 was due largely to the consolidation of small fruit farms into larger agricultural units. The foreign-born white population in 1920 was 11.7 per cent of the total, compared with 15.6 per cent in 1910. The principal foreign nationalities are Italian, German, Canadian and Austrian. The population is all rural, there being no

city of more than 2,500 people in the county.

**Drainage and Water Supply**—The Colorado river flows through the center of the eastern half of the county and turns south near the town of Grand Valley into Mesa county. This stream, with its tributaries, affords the drainage and furnishes the water supply for irrigation and other purposes. The principal tributary is the Roaring Fork. The Colorado river is the largest stream in Colorado. It carries an abundance of water for irrigating all land in this county that is capable of being irrigated, and furnishes water for a large amount of land in Mesa county. One of the largest hydro-electric power plants in the state, located on this stream at a station called Shoshone, furnishes light and power for many of the towns on the Western Slope, for numerous mines and mining towns in the central part of the state and a considerable portion of the electric current used in the city of Denver. Water for domestic purposes in many sections is obtained from wells, and is found at depths of from 10 to 25 feet.

**Industries**—The principal industries are general farming, including fruit-raising, dairying and stockraising; coal mining, lumbering and some metal mining. The valley lands in the neighborhood of Carbondale are especially famous for their potatoes. Fine orchards occupy the valley land from New Castle west, and large stock ranches are found in all parts of the county. The coal deposits are among the largest and best in Colorado. Coal production amounts to 30,000 to 33,000 tons a year. In 1919 there were 23 manufacturing establishments in the county, employing an average of 43 wage-earners and with an output of products valued at \$333,815.

**Rank**—The county ranks among the 63 counties in the state eighth in area, twenty-fourth in population, twenty-first in assessed valuation, tenth in bank deposits, twentieth in agricultural values, sixteenth in dairy cattle values, eleventh in the value of range cattle, fifth in the value of sheep, twenty-third in metal mining, fourteenth in coal mining, thirty-second in manufacturing, tenth in miles of railroad, fifteenth in highway mileage and twenty-fourth in the number of motor vehicles.

**Crops**—The principal crops in the order of their importance and value are hay, fruits, potatoes, wheat, sugar



beets, oats, barley and corn. The farm value of all crops in 1928 was \$2,059,160, of which \$1,015,370 was in hay, \$300,700 in fruits, \$237,830 in potatoes, \$176,370 in wheat, \$145,300 in sugar beets, \$45,850 in oats, \$35,980 in barley and \$34,530 in corn. Of 61,237 acres under cultivation in 1928, 11.1 per cent was in spring wheat, 5.9 per cent in potatoes, 4.7 per cent in oats, 2.7 per cent in barley and 2.6 per cent in corn. The average yields in bushels per acre for the five-year period ending with 1928 were: Spring wheat, irrigated, 29.3 bushels, non-irrigated, 11.0 bushels; corn, irrigated, 31.4 bushels, non-irrigated, 14.0 bushels; barley, irrigated, 39.9 bushels, non-irrigated, 16.1 bushels; potatoes, irrigated, 170.3 bushels, non-irrigated, 44.3 bushels.

**Mineral Resources**—The known minerals are asphaltic rock, carnotite, cassiterite, clays, coal, copper, gold, silver, oil shale, sandstone, granite and other building stone.

**Timber**—There is considerable timber, especially in the northeastern part, principally pine and spruce.

**Land Classification**—In 1928 there was 335,204 acres, or 16.8 per cent of the total area, in private ownership. The county assessors listed 781 acres as fruit land, 53,641 acres as agricultural land, 29,228 acres as dry farming land, 239,918 acres as grazing land, 3,747 acres as productive coal land, and 2,702 acres as non-productive coal land, the remainder being mining claims, railroad rights-of-way and town lots. There was 641,640 acres of government land open to homesteaders, most of which is valuable only for grazing purposes; 515,761 acres in national forests, and 495,874 acres unclassified as to ownership.

**Transportation**—The main line of the Denver & Rio Grande Western railroad follows the Colorado river through the county. A branch of the Rio Grande Western runs southeast along the Roaring Fork river to the town of Aspen in Pitkin county. The Crystal River railroad leaves the Denver & Rio Grande Western railroad at Carbondale and runs south through Pitkin county to Marble, in Gunnison county.

**Highways**—The principal state highway is the Midland Trail or Pikes Peak highway, which follows in a general way the course of the Colorado river through the county. Another state highway leaves this at Rifle and runs north to Meeker, in Rio Blanco county,

and thence north to Craig and west to Salt Lake City and the Pacific coast. Another state highway runs south and east from Glenwood Springs into Pitkin county by way of Aspen and over Independence pass to a connection with the Midland Trail near Twin Lakes. A secondary state highway leaves this road at Bryant and runs south to Pitkin and Gunnison counties and west to Delta. These, with numerous county roads, furnish a fairly adequate highway system. There are 1,471 miles of highways and roads in the county, of which 156 miles are state highways and 1,315 miles are county roads. Of the state roads, 62 miles are surfaced with gravel and sand clay and 86 miles are graded. The county roads are mostly unimproved.

**Educational**—The county is divided into 41 school districts in which there are 61 schools and 99 school buildings, with 128 teachers employed. The schools include six senior high schools, three junior high schools, nine elementary schools, one kindergarten school and 42 rural schools. There are also four union high schools and one county high school. The average daily attendance in the public schools in 1928 was 2,010 and the annual per capita cost was \$99.33, which compares with \$134.24 for the state. There are no private schools or colleges in the county.

**Climatological Data**—The rainfall in the Grand valley and the western part of the county varies from 12 to 15 inches. A narrow belt along the south edge of the eastern end of the county has an average rainfall of about 16 inches. The precipitation increases rapidly in the northeastern corner to about 30 inches. The climate is mild and very favorable to agriculture except in the extreme northeast, where the winters are long and severe, subject to very heavy snowfall. The west end of the county is arid and devoted principally to stockraising. The normal annual mean temperature at Grand Valley is 48.5 degrees Fahrenheit; at Glenwood Springs, 45.0 degrees and at Rifle, 47.6 degrees. The normal annual precipitation is 13.9 inches at Glenwood Springs and 12.4 inches at Rifle. The average number of days between killing frosts is 114 at Glenwood Springs and 144 at Rifle. Last killing frosts in the spring usually occur between April 4 and July 4 at Glenwood Springs and between April 17 and June 1 at Rifle.

**Tourist Attractions**—Glenwood Springs is one of the best known and most popular tourist resorts in Colorado. There are numerous mineral springs here, having a wide variety of mineral waters of recognized medicinal value. One of these, the Yampah, is said to have a flow of about 2,000 gallons per minute, being one of the largest mineral springs in the world. The open-air bathing pool located here is fed from these mineral springs, the temperature of the water being about 90 degrees Fahrenheit. It is visited by thousands of tourists annually and is one of the most popular open-air bathing pools in the United States. There is a wealth of magnificent mountain scenery in the territory north and south of Glenwood Springs and automobile roads are being rapidly extended to make this territory easily accessible to tourists.

**Cities and Towns**—There are six incorporated towns in the county, as follows: Carbondale, elevation 6,000 feet, estimated population, 375; Glenwood Springs, elevation 5,747 feet, population, 2,200; Grand Valley, elevation 5,095 feet, population, 300; Newcastle, elevation 5,552 feet, population, 460; Rifle, elevation 5,332 feet, population, 1,100; and Silt, elevation 5,338 feet and population 180. Glenwood Springs, the county seat and principal city, is located on the Denver & Rio Grande Western railroad at the junction of the Roaring Fork with the Colorado river. It is best known to Colorado people as a tourist and health resort, but is also an important distributing center and supply station for the agricultural territory in the Colorado and Roaring Fork valleys. Its population in 1920 was 2,073, compared with 2,019 in 1910. Postoffices, other than the incorporated

towns, are Antlers, Atchee, Highmore, Raven and Riland.

**Banks**—There are eight banks in the county of which two are located at Glenwood Springs, two at Rifle and one each at Carbondale, Grand Valley, New Castle and Silt. Their total deposits on December 31, 1928, were \$3,615,055.

**Special Opportunities**—The principal opportunities for development here are perhaps in stockraising and farming. There is an immense amount of good grazing land not being pastured to its full capacity. Coal deposits afford unlimited opportunities for development, but they will perhaps not be worked much more extensively until larger markets for coal are opened up near to this territory. Much of the mountainous area in this county is mineralized and it is not beyond the bounds of possibility that various metals may be found in paying quantities. The stone deposits are very extensive and valuable, but their development will wait upon market and transportation conditions. There are extensive deposits of rich oil shale in the northwestern part of the county belonging to the well known Green river shale deposits of western Colorado. The federal government has set aside 45,000 acres of shale land in Garfield county as a naval oil reserve. This shale is very easily mined and runs from 15 to 90 gallons of oil per ton, in addition to a considerable amount of ammonium sulphate and other valuable by-products.

**Commercial Organizations**—The commercial organizations are the Community club at Carbondale; Chamber of Commerce, Glenwood Springs; Chamber of Commerce, Grand Valley; Chamber of Commerce, Rifle, and Farmers Union, Silt.

## GENERAL de-

**scription**—Gunnison county lies in the north-central part of the state, the eastern boundary being formed principally by the Continental Divide. It is of a very irregular triangular outline with an extreme length, north and south, of about 90 miles, and an extreme width of 65 miles. Its area is 2,034,560 acres, or a little more than the combined



areas of the states of Delaware and Rhode Island. The surface is extremely irregular and in most parts

mountainous. The altitude varies from about 6,375 feet where the Gunnison crosses the western boundary, to about 14,000 feet at the summits of some of the peaks in the north and east.

**Early History**—The first white visitors in this region, so far as is known, were the members of the party led by Captain John W. Gunnison, who made an expedition to the Rocky mountains in 1853 in search of a feasible railroad route from the Mississippi river to the Pacific ocean. In the early 60s the territory now included in Gunnison county was visited by numerous prospectors and some signs of gold were found. In 1872, a party of prospectors, of which Dr. Sylvester Richardson was geologist, entered this area. Two years later Dr. Richardson led another party into the Gunnison valley and established a colony near the present site of the city of Gunnison. The county was organized in 1877 from a part of Lake county. One of the first important discoveries in the state was that of the Forest Queen lode, near the present site of Crested Butte, in this county. In the early days of mining activity Gunnison county was one of the biggest mineral producers in the state.

**Rank**—Among the 63 counties in the state, Gunnison ranks fifth in area, thirty-seventh in population, twenty-fourth in assessed valuation, twenty-fifth in bank deposits, forty-first in value of agriculture, thirty-fifth in value of dairy cattle, third in value of range cattle, thirteenth in value of sheep, fiftieth in value of swine, fifteenth in metal mining, sixth in coal mining, fortieth in manufacturing, fourth in railroad mileage, forty-fourth in highway mileage and fortieth in the number of motor vehicles.

**Topography and Soil**—The Gunnison river has its source near the eastern boundary of the county and with Tomichi creek, a tributary, divides the county into two sections. The central part, known as the Gunnison valley, is a comparatively level mountain park of considerable area, of fertile soil and some agricultural development. The northern part is mountainous and contains comparatively little level land. The southwestern corner rises rather rapidly to the San Juan mountains and is also extremely rugged except for some level land along the Lake fork of the Gunnison river. There is no soil survey of this county available.

**Population**—The estimated population in 1925 was 5,590, compared with

5,897 in 1910, the decrease being 5.2 per cent. This slight decrease was due principally to a falling off in metal mining activity. The population is all rural. In 1920 the foreign-born white population was 18.2 per cent of the total, compared with 27.7 per cent in 1910. The principal foreign nationalities are Austrian, Italian, Czecho-Slovak and German.

**Drainage and Water Supply**—The Gunnison river and its tributaries furnish the principal drainage. These streams all have their sources in regions of high precipitation, and carry an abundant supply of water the year round. There is some irrigation in the Gunnison valley and the Gunnison river carries water for the irrigation of large areas farther west. A small section of the northwestern part of the county is drained by tributaries of the Colorado river.

**Industries**—The principal industries are mining, stockraising, lumbering, quarrying, and farming. Mining is carried on in nearly all sections of the county. Farming is followed principally in the Gunnison valley and most of the stockmen have their home ranches in this area. There is a large amount of good grazing land in the national forest areas, especially in the northern part of the county. This range is used principally by Gunnison county stockmen. The marble deposits of Yule creek, in the northwestern part of the county, are perhaps the finest in America. Quarries have been opened near the town of Marble and white marble from these immense beds of stone has been used for building and monumental purposes in all parts of the country. The postoffice at Denver, the Cuyahoga county courthouse at Cleveland, Ohio, and the Lincoln Memorial at Washington, D. C., are among the principal public structures built of Colorado Yule marble.

**Crops**—The principal crops in the order of their importance and value are hay, potatoes, oats and barley. Out of a total value of \$874,010 for all crops in 1928, hay represented \$824,270; potatoes, \$16,400; oats, \$12,960; and barley, \$8,760.

**Mineral Resources**—Few counties have a finer variety of mineral than Gunnison county. The known minerals are aluminum, antimony, bismuth, clay, including fire clays; coal, cobalt, copper, gold, granite, graphite, grindstone and other abrasive stones; iron, lead, limestone, manganese, marble, mineral paint, molybdenum, nickel, oil





A good stand  
of Sugar Beets



Fishing Resort on Grand  
Mesa



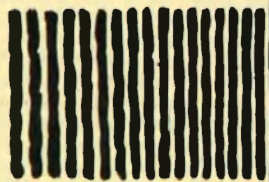
Hay and Fruit Farm  
in Mesa County



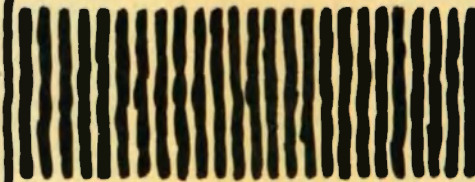
Grading and Packing Apples



Marble Quarries  
at Marble



Oil Shale Cliffs  
near DeBeque



High Grade  
Western Slope Cattle



Onions - 800 Bushel  
to the Acre.



shale, platinum, sandstone, slate, silver, sulphur, titanium and tungsten. Most of these have been produced in considerable quantities. From 1861 to 1927 inclusive, the county produced gold, silver, copper, lead and zinc of an aggregate value of \$11,984,618. Present production of these minerals runs from \$85,000 to \$90,000 a year. Annual output of coal is between 500,000 and 600,000 tons.

**Timber**—There is much heavy timber in the mountain sections of the county, principally pine and spruce. Lumbering and tie-making have been followed to a considerable extent in the past.

**Land Classification**—In 1928, there was 335,888 acres or 16.5 per cent of the total land area, in private ownership. The county assessor classifies 37,710 acres of this area as irrigated land, 256,217 acres as grazing land, 11,743 acres as productive coal land, and 26,088 acres as non-productive mineral claims, the remainder being railroad rights-of-way and town lots. There is 323,740 acres of government land open to homesteaders though most of this is of little value except for grazing purposes. There is 19,093 acres of unappropriated state land in the county and 1,124,757 acres in national forests, while 231,082 acres is unclassified as to ownership.

**Transportation**—The main narrow gauge line of the Denver & Rio Grande Western railroad runs east and west across the county by way of the town of Gunnison. A branch road extends from this line to the mining camps at Ohio City, Pitkin and Quartz and to the coal camps in the vicinity of Crested Butte and the mining camps of Baldwin and Kubler. The Lake City branch of the Denver & Rio Grande Western railroad leaves the main line at Lake Junction and follows the course of the Lake Fork branch of the Gunnison river to Lake City, the county seat of Hinsdale county.

**Highways**—There are 467 miles of highways in the county, of which 231 miles are state highways and 236 miles are county roads. Of the state highways, 49 miles are surfaced with gravel and sand-clay and 171 miles are graded. The county roads include 18 miles surfaced and 218 miles unimproved. The principal state highway is the Rainbow Route, which passes east and west through the county by way of Gunnison. A secondary state highway runs north from Gunnison to Crested Butte

and west through Somerset to Hotchkiss and Delta in Delta county. Another secondary state highway runs south from Lake Junction to Lake City and another runs north from Sapinero to Hotchkiss in Delta county. There are numerous county roads and trails, generally imperfectly improved, and developed principally for the benefit of the mining districts and stockraisers.

**Educational**—The county is divided into 26 public school districts, in which are located 36 schools, employing 62 teachers. These include three senior high schools, three junior high schools, five elementary schools, one kindergarten school and 24 rural schools. The average daily attendance in the public schools in 1928 was 1,150 and the per capita cost, based on average attendance, was \$107.27, which compares with \$134.24 for the state. There are no private schools in the county. Western State college is located at Gunnison.

**Climatological Data**—The rainfall in this county is extremely varied. A small area in the Gunnison valley has an average annual rainfall of about 10 inches and the territory just surrounding this has an average annual rainfall of 14 inches. In the north the rainfall increases very rapidly, being about 25 inches in the mountainous areas along the northern boundary. The climate in the Gunnison valley is comparatively mild, with short summers and long, open winters. In the northern part the snowfall is extremely heavy and very low temperatures are common.

The normal annual mean temperature at Crested Butte is 33.6 degrees Fahrenheit; at Gunnison, 36.9 degrees; and at Sapinero, 37.8 degrees. The normal annual precipitation at Crested Butte is 25.4 inches; at Gunnison, 9.8 inches; and at Sapinero, 18.9 inches. The average number of days between killing frosts at Sapinero is 93, the last in the spring usually occurring between May 30 and July 5, and the first between September 6 and September 28.

**Tourist Attractions**—This is one of the most picturesque mountainous regions of Colorado. The Black canon of the Gunnison river in the western part of the county has long been greatly admired by railroad tourists. The Rio Grande Western railroad follows this canon for several miles. The mountainous regions in the northern part of the county at present are almost wholly inaccessible on account of lack of improved highways. There are mineral springs at Cebolla and Waunita whose waters are famous for their

curative properties. The county is noted for its excellent and extensive fishing streams.

**Cities and Towns**—There are four incorporated towns in the county. Gunnison, the county seat, is located on the Denver & Rio Grande Western railroad in the heart of the Gunnison valley, one of the finest stockraising districts in the state. Its population in 1920 was 1,329 compared with 1,026 in 1910. Crested Butte, in the northern part of the county, is an important coal camp. The other two are Marble, with a population of 250, and Pitkin, with a population of 250. The elevation of Gunnison is 7,683 feet; of Crested Butte, 9,000 feet; Marble, 7,800 feet and Pitkin, 9,200 feet. In addition to these towns, there are postoffices at Almont, Baldwin, Camp Center, Cebolla, Doyleville, Iola, Ohio, Powderhorn, Ragged Mountain, Sapinero, Somerset and Whitepine.

**Banks**—There are three banks in

the county, of which two are at Gunnison and one is at Crested Butte. Their combined deposits on December 31, 1928, were \$1,845,310.

**Special Opportunities**—The principal opportunities offered here are in the line of mining development. There is an immense area of mineralized land in this county which has never been adequately prospected. Extensive coal deposits are found in the northern part of the county and are being worked at Crested Butte, Somerset and various points. The only anthracite coal produced in Colorado comes from the northern part of Gunnison county, in the vicinity of Crested Butte. There is also opportunity for further development of the livestock industry and some further agricultural development is possible.

**Commercial Organizations**—The only commercial organization in the county is the Chamber of Commerce at Gunnison.

## GENERAL Description—

Hinsdale county lies in the southwestern part of the state in what is known as the San Juan mining district. It is of an irregular rectangular outline, considerably broadened at the north end. Its extreme length

north and south is about 52 miles and extreme width east and west is 26 miles. Its area is 621,440 acres, slightly less than the area of the state of Rhode Island. The surface is nearly all mountainous, the altitude varying from about 8,500 feet where the Lake Fork branch of the Gunnison river crosses the north boundary, to more than 14,000 feet at the summits of some of the peaks in the San Juan range near the central part.

**Early History**—So far as is known the first white people to enter this territory were the members of John C. Fremont's fourth expedition, which started out with the object of proving the feasibility of a railway route across the Rocky mountains at this point. This expedition passed up the Rio Grande del Norte late in 1848 and established a camp some time in Decem-



ber near the present boundary between Hinsdale and Mineral counties. That was the famous "Camp Starvation," the exact location of which has never been determined. The weather became so severe that more than half of the members of the party perished from cold and starvation. Those who remained, with Fremont, retraced their steps down the San Luis valley early in 1849 and finally made their way to Taos, New Mexico. Hinsdale county was included in the tract bought from Southern Ute Indians in 1873. Prospectors flocked into this region immediately following the purchase and important discoveries of gold and silver were made. Among the early prospectors here were Otto Mears and Enos Hotchkiss, who supervised the construction of the famous Slumgullion wagon road as the principal outlet

from the new mining camp of Lake City to the towns in the San Luis valley. The county was organized in 1874 from parts of Conejos, Costilla and Lake counties. Hinsdale county was the pioneer mineral producing county of the San Juan region, Ouray, Silverton, Telluride and Rico all having followed Lake City in mineral development. During the silver excitement of the early 70s, Lake City, via Del Norte, was the mecca toward which the adventurous steps of thousands of fortune hunters were turned, and for many years Hinsdale county poured out millions into the channels of the world's trade. Hidden Treasure, Golden Pleece and other pioneer mines of that district are among the best known in Colorado.

**Topography and Soil**—The San Juan mountains cross the southern part and the Continental Divide forms a part of the eastern boundary. There is little level land except in the valleys of a few of the numerous streams having their sources in this region. The soil in these valleys is very fertile, but the seasons are extremely short and natural hay is the only important crop grown. Potatoes, unsurpassed in quality, and other vegetables, such as head lettuce, cabbage, carrots, onions, radishes, beets, etc., are grown to a limited extent.

**Population**—The estimated population in 1925 was 538, compared with 646 in 1910, the decrease being 16.7 per cent. This decrease was due largely to a decline in mining activities. The county now has the smallest population per square mile of any county in the state. In 1920 the foreign-born white population was 7.6 per cent of the total, compared with 18.7 per cent in 1910. The principal foreign nationalities are Canadian, English and Swedish.

**Drainage and Water Supply**—Numerous small streams have their sources in the county, flowing in three directions. The Rio Grande del Norte flows across the central part just north of the San Juan mountains. A number of small streams tributary to the San Juan river have their sources just south of these mountains. Lake Fork and Cebolla creek, tributaries of the Gunnison, rise in the northern part and flow north. These streams have their sources in regions of high precipitation and carry plenty of water the year round. Irrigation is practiced to a limited extent in some of the val-

leys and there is plenty of water available.

**Industries**—Mining is the principal industry. Lumbering is carried on to a limited extent, principally to supply local demands. Agriculture and stockraising are followed in some of the lower mountain valleys, principally in the valley of the Lake fork of the Gunnison river.

**Crops**—The farm value of all crops in 1928 was \$72,630, of which \$63,500 was in hay, \$5,400 in potatoes, and \$3,180 in miscellaneous crops.

**Mineral Resources**—The known minerals are alunite, clays, copper, gold, iron, lead, oxide of manganese, silver, sand, and a wide variety of stone, and zinc. There has been little development except in the production of gold, silver, copper, lead and zinc. The production of these metals is around \$15,000 a year at present. Total production up to 1928 was \$10,640,186.

**Land Classification**—In 1928 there was 25,267 acres, or only 4 per cent of the total area, in private ownership. The assessor listed 2,352 acres as irrigated land, 331 acres as dry farming land, 15,744 acres as grazing land, and 6,428 acres as non-productive mining claims, the remainder being railroad rights-of-way and town lots. There is 112,510 acres of government land open to homesteaders, 8,239 acres of unappropriated state land, 501,604 acres in national forests and some acreage unclassified as to ownership.

**Transportation**—A branch of the Denver & Rio Grande Western railroad runs south from the main narrow gauge line at Sapinero to Lake City, the county seat, this being the only railroad in the county.

**Highways**—The county has 169 miles of highway, of which approximately 100 miles is graded and the remainder unimproved. The principal state highway is that extending from the Rainbow Route in Gunnison county south to Lake City and across the Continental Divide into Mineral county. Another road has been planned across the county from Creede, in Mineral county, to Silverton, in San Juan county. The southern part of the county is almost wholly inaccessible except by trails.

**Educational**—The county is divided into four public school districts in which there are five schools employing nine teachers. These include one senior high school, one elementary school and three rural schools. There



are no private schools or colleges. The average daily attendance in the public schools is 95 and the per capita cost is \$101.05.

**Climatological Data**—The rainfall is heavy in practically all parts of the county. A belt of high precipitation crosses the central part, the average annual rainfall being about 25 inches. It is somewhat lower north and south of this belt. The climate is severe with short summers and long winters, marked by heavy snowfall and extremely low temperature in the mountain area. The mean annual temperature at Hermit is 32.5 degrees Fahrenheit and normal annual precipitation is 18.3 inches.

**Tourist Attractions**—Like other mountainous districts of Colorado, this area contains much beautiful scenery. It is noted for its picturesque lakes, one of the best known of which is Lake San Cristobal, four miles from Lake City. There is good trout fishing in all the streams and in the lakes. Big game is also found in the mountains. The county has comparatively few tourist visitors, however, because of poor transportation facilities and lack of improved highways.

**Cities and Towns**—Lake City, the county seat and principal town, is the terminus of the Lake Fork branch of the Denver & Rio Grande Western railroad and was at one time one of the most active mining camps in the state. Its population in 1920 was 317, compared with 405 in 1910.

**Rank**—Hinsdale ranks among the 63 counties in the state forty-fourth in area, sixty-third in population, sixty-third in assessed valuation, fifty-sev-

enth in agriculture, sixty-first in dairy cattle values, fifty-seventh in range cattle values, forty-second in sheep values, fifty-sixth in swine values, twentieth in metal mining, sixty-second in manufacturing, sixty-first in railroad mileage, fifty-eighth in highway mileage and sixty-third in the number of motor vehicles.

**Banks**—There are no banks in Hinsdale county, most of the banking business of the county being transacted through the banks of Gunnison and Denver.

**Special Opportunities**—The principal opportunities here are in the direction of mining development. All the forest area and government homestead land is open to prospecting and may be patented under the federal land laws after mineral deposits have been properly located. There is a large area here which has never been adequately prospected and which undoubtedly contains rich mineral deposits. There is considerable timber on the mountain slopes, principally pine and spruce, and an extension of railways into this territory might make its development profitable. During the early part of 1919 activity was resumed in the mining districts of the county as a result of advances in the price of silver, but declines in the price of the metal in recent years have had a depressing effect. Some of the richest silver deposits in the state are in this county and larger production may be expected here in the future.

**Commercial Organizations**—There are no commercial clubs in the county affiliated with the state organization.

## GENERAL Description—

Mesa county is the center of the tier of western Colorado counties bordering on the state of Utah. It is of irregular triangular shape, with an extreme length in the north of about 84 miles, east and west, and a width of 62 miles on the western boundary and about 10 miles in the extreme northeastern corner. Its area is 2,024,320 acres, or a little less than two-thirds that of the state of Connecticut. Its surface is extremely varied and the



altitude ranges from about 4,360 feet, at the point where the Colorado river crosses the western boundary, to over 9,000 feet on the Uncompahgre plateau, in the south, and about 10,000 feet on the Battlement mesa, in the northeast.



**Early History**—Captain John W. Gunnison's expedition passed down the Gunnison river to its confluence with the Colorado river, and thence west along the Colorado river into Utah, in 1853. Gunnison regarded this as a desert region of no value for agricultural purposes. This was included in the territory claimed by the Ute Indians, and no settlements were made here during the early history of Colorado, principally because of the hostile attitude of these red men. In the summer of 1881 these Indians were removed by treaty to the Uinta reservation, in Utah, and late in that year the territory included in Mesa county was thrown open to settlement. Farmers and stockmen immediately came in in great numbers. Among them was George A. Crawford of Kansas, who, with a party of ranchmen, chose the junction of the Colorado and Gunnison rivers as the site for a town. They laid out the new settlement in the fall of 1881 and at once began the construction of Grand Junction. This is now the "metropolis of the western slope." The county was organized in 1883 from a part of Gunnison county, and received its name from the great tableland on its eastern side, called Battlement mesa.

**Topography and Soil**—The agricultural land here lies largely in the valleys of the Colorado and Gunnison rivers. In the northern part there are two prominent ridges extending into the county. The Battlement mesa lies between the Colorado and Gunnison rivers in the eastern part of the county and contains the highest elevations. The Book Cliff hills, so called for their variegated stratification, resembling the marbled edges of a book, capped with an almost level stratum of fossiliferous sandstone representing the cover, extend south into the county from Garfield county and continue into Utah under the name of Pinon mesa. The river valleys lie between these mesas and contain some of the best agricultural land in Colorado. The soil shows a very wide range in character and texture. In the Grand valley it is principally a fine sandy loam, with comparatively small areas of clay soil, popularly known as Mesa clay. On the higher lands the soil is also principally a sandy loam. A detailed soil survey of the Grand valley was made by the bureau of soils of the United States department of agriculture in 1905, published in 1906.

**Population**—The estimated popula-

tion in 1925 was 22,327, compared with 22,197 in 1910, the increase being four-tenths of 1 per cent. In 1900 the population was 9,267. The large increase during the decade ending with 1910 was due principally to the development of fruit lands in the Colorado river basin, while the very small increase in the decade ending with 1920 was due largely to the consolidation of many of the small orchard tracts into larger agricultural units. In 1920 the foreign-born white population was 7.2 per cent of the total, compared with 9.3 per cent in 1910. The principal foreign nationalities are German, Canadian, Italian and English. The population is all rural except that of the city of Grand Junction.

**Drainage and Water Supply**—The Colorado river, the largest stream in Colorado, flows through the north-central part of the county. At Grand Junction it is joined by the Gunnison river. These two streams carry water for the irrigation of much more land than is now being watered along their courses. There are numerous small tributary streams, most of which carry plenty of water throughout the year. Domestic water in the valley sections is obtained principally from cisterns, filled through filters from the irrigation canals.

**Industries**—The principal industries are farming, stockraising, dairying, fruit-raising, bee keeping, coal mining, metal mining and manufacturing. Stockraising and stockfeeding are followed very extensively in the valleys and thousands of cattle and sheep are grazed on the excellent pasture lands of the higher mesas. The cattle and hogs are for the most part high grade, there being several herds of registered dairy and beef cattle as well as registered hogs. The Book Cliff coal field lies in the northern part of the county and extends into the Grand mesa. The coal deposits are very extensive and range in character from bituminous to semi-anthracite. There has been some metal mining in the county, but the mineralized districts lie chiefly remote from transportation in the southern part of the county and have been but little developed. The first sugar factory in Colorado was built at Grand Junction in 1896 and is still in operation. The valley of the Colorado (Grand) river is one of the best fruit growing districts in Colorado, the principal fruits grown being peaches, pears and apples.

**Crops**—The principal crops in the order of their importance and value

are fruits, hay, corn, sugar beets, wheat, potatoes, dry beans, oats and barley. The farm value of all crops in 1928 was \$3,178,040, of which \$1,109,540 was in fruits, \$932,920 in hay, \$258,740 in corn, \$213,400 in sugar beets, \$181,550 in wheat, \$131,630 in potatoes, \$80,460 in dry beans, \$63,760 in oats and \$27,300 in barley. There was under cultivation in 1928 a total of 74,845 acres, or 3.6 per cent of the total area. Of the area under cultivation, 13 per cent was in corn, 5.7 per cent in oats, 5.4 per cent in spring wheat, 4.6 per cent in winter wheat, 3.7 per cent in potatoes, 3.1 per cent in sugar beets and 1.7 per cent in barley. The percentages of crops grown with irrigation were, oats, 91.4; barley, 93.1; potatoes, 72.1; corn, 92.8, and dry beans, 88.9. Average yields in bushels per acre over a five-year period were: Winter wheat, 31.5 irrigated, 11.5 non-irrigated; spring wheat, 28.4 irrigated, 9.3 non-irrigated; corn, 34.7 irrigated, 10.8 non-irrigated; barley, 37.4 irrigated, 13.0 non-irrigated, and potatoes, 110.3 irrigated, 30.9 non-irrigated. The numbers of fruit trees reported by the census in 1925 were: Apples, 243,337; peaches, 234,588; pears, 169,177; plums, 6,056; grape vines, 45,477.

**Mineral Resources**—The known minerals are carnotite, clays, coal, copper, barite, gypsum, molybdenite, mica, oil shale, petroleum, building stone, granite, some limestone and sandstone. Several large specimens of petrified dinosaurs have been taken from the Jura-Triassic formations south of Grand Junction and Fruita to museums in the east. The county produces between 130,000 and 165,000 tons of coal annually, the output in 1928 being 163,861 tons. The production of the principal metals is nominal. The census reported 38 manufacturing establishments in the county in 1919, employing an average of 433 wage-earners, and with a gross output valued at \$3,347,570.

**Timber**—There is some timber on the Battlement mesa, and the Uncompahgre plateau, principally pine, cedar and pinon.

**Land Classification**—In 1928, there was 467,367 acres, or 23 per cent of the total area of the county, in private ownership. Of this the county assessor listed 4,967 acres as fruit land, 88,952 as irrigated land, 1,856 acres as natural hay land, 361,789 as grazing land, 2,698 acres as productive coal land, 3,105 acres as railway rights-of-way

and 4,000 acres in town lots. There was 740,780 acres of government land open to homesteaders, most of which is valuable only for grazing purposes, and 575,100 acres in national forests, the remainder being unclassified as to ownership.

**Transportation**—The main line of the Denver & Rio Grande Western railroad follows in general the course of the Colorado river west to Grand Junction and continues west into Utah. A branch of the road leaves the main line at Grand Junction and runs southeast along the Gunnison river to Delta and Montrose, from which latter point it is narrow gauge, one branch running south to Durango and the other east to a junction with the main line at Salida. The Uinta railroad leaves the Denver & Rio Grande Western railroad at Mack and runs northwest into Garfield county and north to Dragon, Utah.

**Highways**—The county has 2,667 miles of highways of which 213 miles are state highways and 2,454 miles are county roads. These include six miles of paved road, 72 miles of surfaced road and 262 miles of graded road, the remainder being unimproved. The principal state highways are the Rainbow Route, which follows the Gunnison river to Grand Junction, and the Midland Trail, which follows the Colorado river and joins the Rainbow Route at Grand Junction. The joint route extends westward, following in a general way the line of the Denver & Rio Grande Western into Utah and on to Salt Lake City. A new state highway runs southwest from the Rainbow Route at Whitewater into the southwestern part of the county. Another new state highway extends north from Fruita through Garfield and Rio Blanco counties to a connection with the White River highway at Rangely. A state highway extending from a junction with the Midland Trail on Plateau creek to a junction with the Rainbow Route at Delta, passes over the summit of Grand mesa through a region dotted with more than a hundred beautiful lakes stocked with mountain trout.

**Educational**—The county is divided into 35 public school districts, in which are 69 schools employing 248 teachers. These include 10 senior high schools, two junior high schools, 21 elementary schools and 36 rural schools. The average daily attendance is 5,218 and the per capita cost in 1928, based on average attendance, was \$98.14, which com-

pares with \$134.24 for the state. The state maintains a home and training school for mental defectives at Grand Junction. There are no private colleges or universities in the county, but a junior state college is maintained at Grand Junction.

**Climatological Data**—The climate of the Colorado (Grand) valley is perhaps the most delightful climate in Colorado. The rainfall here is extremely light, being less than 10 inches. The percentage of sunshine is higher than in any other part of the state, with the possible exception of the San Luis valley. The summers are long and warm, with moderately cool nights. The winters are not subject to extremely low temperatures, and there is little snowfall. On the high lands on Grand mesa and the Uncompahgre plateau the climate is somewhat more severe, with much heavier rainfall. The average annual precipitation on Grand mesa ranges from 15 to 20 inches, and on the Uncompahgre plateau from 15 to 25 inches. North and south of the Colorado and Gunnison rivers the rainfall varies from 10 to 15 inches. The annual mean temperature is 46.1 degrees Fahrenheit at Collbran, 52 degrees at Grand Junction, 48.5 degrees at Grand Valley, and 51.4 degrees at Palisades. The normal annual precipitation is 8.3 inches at Grand Junction. The average number of days between killing frosts is 184 at Grand Junction and 160 at Palisades. The last frost in the spring usually occurs between March 23 and May 14 at Grand Junction and April 14 and May 16 at Palisades, and the first in the fall between September 14 and November 11 at Grand Junction and September 15 and October 17 at Palisades.

**Tourist Attractions**—Tourist travel to Grand Junction and the fruit growing district of Colorado (Grand) valley has always been heavy. The completion of the Midland Trail and the Rainbow Route has greatly increased automobile travel in the past few years. There is much attractive scenery on the higher lands of Grand mesa and the Uncompahgre plateau, and travel into this territory is being gradually increased as automobile routes are being extended. The lakes on Grand mesa offer a delightful place for summer outings. The altitude is from 9,000 to 10,000 feet. The lakes are well-stocked with trout. There are many beautiful camping spots in parks, surrounded by aspens and pines. The Colorado national monument, about 25

miles square, lies within six miles of Grand Junction to the west. Within it is Monument canon, so named from the cathedral spires and other curious formations in red sandstone, which are among the most impressive scenic attractions in the state.

**Cities and Towns**—There are five incorporated towns in the county, as follows: Collbran, elevation 6,000 feet, population 300; DeBeque, elevation 4,800 feet, population 400; Fruita, elevation 4,512, population 1,200; Grand Junction, elevation 4,587 feet, population 12,500; Palisades, elevation 4,740 feet, population 1,000. Grand Junction, the county seat and principal town, is located on the Denver & Rio Grande Western railroad at the junction of the Gunnison with the Colorado river near the central part of the county. It is the principal shipping point and trading center of the western slope and is one of the most progressive cities in the state. It has a commission form of government and owns its water system, which brings water from a distance of 26 miles. Its population in 1920 was 8,665, compared with 7,754 in 1910. Palisades, on the Denver & Rio Grande Western railroad, northeast of Grand Junction, is the center of one of the most important fruit-raising districts in the county. Its population in 1920 was 885, compared with 900 in 1910. Post-offices other than the incorporated towns are Cameo, Clifton, Escalante Forks, Gateway, Glade Park, Loma, Mack, Mesa, Molina, Plateau City, Sinbad and Whitewater.

**Rank**—Mesa county ranks among the 63 counties in the state sixth in area, ninth in population, eleventh in assessed valuations, ninth in bank deposits, ninth in agricultural values, fifth in dairy cattle values, first in range cattle values, sixth in sheep values, ninth in swine values, twenty-sixth in metal mining, ninth in coal mining, sixteenth in manufacturing, eleventh in railroad mileage, sixth in highway mileage and ninth in the number of motor vehicles.

**Banks**—There are six banks in the county of which two are at Grand Junction and one each at Collbran, De Beque, Fruita and Palisades. Their aggregate deposits on December 31, 1928, were \$4,653,271.

**Special Opportunities**—There is a very large undeveloped area in this county. The rainfall is generally insufficient for successful farming operations without irrigation, but in recent

years non-irrigated farming has been gradually increased and has been proving moderately successful. There are large areas of mineralized land in the southern part of the county which promise much for development when adequate transportation facilities are provided. Some of the richest oil shale deposits in the United States are found in the northern part of the county, principally in the neighborhood of De Beque. Recent experiments have

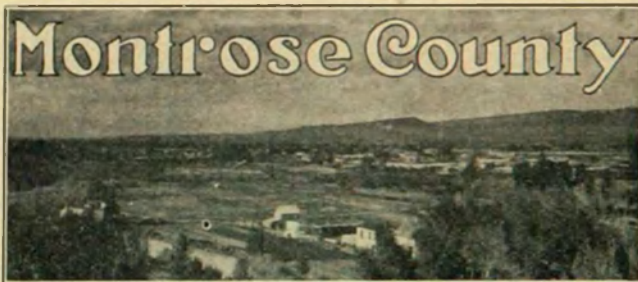
shown that these shales carry from 10 to 90 gallons of oil per ton of shale, or even more. In addition to the oil this shale also contains large amounts of ammonium sulphate, dye stuffs and other valuable products.

**Commercial Organizations**—Commercial organizations include the Chamber of Commerce, Collbran; Chamber of Commerce, DeBeque; Chamber of Commerce, Grand Junction; Chamber of Commerce, Palisades.

### GENERAL Description—

Montrose county lies somewhat south of the west-central part of the state, the western boundary being formed by the state of Utah. Its outline is that of a double rectangle with an extreme length, east and west, of about 86 miles and an extreme width of 35 miles. The area is 1,448,960 acres, or about one-fourth that of the state of New Hampshire. The surface in general is a broken tableland crossed by numerous valleys extending generally from the southeast to the northwest. The Uncompahgre plateau extends northwest from the San Juan mountains across the central part of the county. The altitude varies from about 5,150 feet on the western boundary to about 9,600 feet in the most elevated points of the Uncompahgre plateau.

**Early History**—Montrose county lies north of the sections of Colorado territory visited by the early Spanish explorers and so far as authentic records go none of these fortune hunters ever entered the area now included in this county. It was explored in 1853 by a party headed by Captain John W. Gunnison, but at that time was thought to be unfit for cultivation. This territory was the home of the Ute Indians when they were first visited by white people. A treaty was signed between the United States and this tribe in 1880 and in September, 1881, the Indians were moved to the Uinta reservation in Utah, and the Uncompahgre valley was thrown open to settlement. Thousands of homeseekers flocked into this territory, some of them being



merely gold seekers, but most of them farmers and stockmen. The county was organized in 1883 from a part of Gunnison county. Stockraising was then the principal occupation.

**Topography and Soil**—The Uncompahgre plateau crosses the county near the central part, dividing it roughly into two rectangles which are distinctly different in soil and general conditions. The eastern section is an irregular and broken tableland, crossed in the northeast corner by the Gunnison river and near the center by the Uncompahgre river. The former stream has no valley worthy of note, but the Uncompahgre valley contains a large area of agricultural land, including some of the best general farming land in western Colorado. The western rectangle is drained by the Dolores river and contains considerable good farming land in the valleys of this stream and its tributaries. Much of the area in this region is covered with shale and similar formations and is of little value for farming purposes. The soils of the county are greatly varied in character, being chocolate colored loam on the higher areas, such as Bostwick park and Log Hill mesa; sandy loam on the mesa west of the Uncompahgre river in the Paradox valley; clayey loam along the San Miguel and Uncompahgre rivers and



adobe along the east side of the Uncompahgre river. A detailed soil survey of the Uncompahgre valley was made by the bureau of soils of the United States department of agriculture in 1910 and published in 1912. No soil survey of the western part of the county is available.

**Population**—The estimated population in 1925 was 12,735, compared with 10,291 in 1910, the increase being 23.7 per cent. The percentage of increase in population in this county was greater than that in any other county in this district during the last decade, due principally to extensive agricultural development under the Uncompahgre reclamation project and elsewhere. In 1920 the foreign-born white population was 6.7 per cent of the total, compared with 8.9 per cent in 1910. The principal foreign nationalities are Russian, German, Italian and English.

**Drainage and Water Supply**—The eastern part of the county is drained by the Gunnison, Cimarron and Uncompahgre rivers, the latter two being tributaries of the former. All carry a fair supply of water the year round, but the Gunnison, which has little irrigated land along its course, carries more water than can be used near it, while the Uncompahgre carries a supply insufficient for irrigating the broad valley through which it flows. This condition gave rise to the construction of a large irrigation system in the county known as the Uncompahgre project, built by the United States reclamation service. The San Miguel river furnishes the principal water supply for a large area of land known as Wrights mesa and the Tabaquatche parks, as well as the San Miguel valley. Beaver Creek also furnishes water for Wrights mesa, while West Paradox is watered from springs and storage reservoirs. In most parts of the county cisterns have been dug for domestic water. In the irrigated districts these usually are filled through filters from irrigation ditches.

**Industries**—General farming is the principal industry. This includes stock-raising, dairying, bee keeping and fruit-growing, all of which are carried on to a considerable extent. Metal mining is followed rather extensively, chiefly in the western part. There is some coal mining also, principally in the west. Montrose has a variety of industries, chief of which are manufacturing in a small way and general merchandising. The census reports

show that there were 26 manufacturing establishments in the county in 1919, with an average of 96 wage-earners and an output of products valued at \$701,936.

**Crops**—The principal crops in the order of their importance and value are hay, fruits, wheat, potatoes, sugar beets, corn, oats and barley. The farm value of all crops in 1928 was \$3,059,260, of which \$944,830 was in hay, \$354,700 in fruits, \$348,820 in wheat, \$336,580 in potatoes, \$181,600 in sugar beets, \$117,980 in corn \$60,970 in oats and \$46,300 in barley.

**Mineral Resources**—The known minerals are carnotite and other radium and vanadium-bearing ores, clays, coal, copper, gold, oil shale, petroleum, natural gas, silver, sand and building stone. The output of coal averages around 1,300 tons annually. The production of gold and silver at this time is nominal.

**Timber**—There is some timber in the higher altitudes, principally pine and cedar.

**Land Classification**—In 1928, there was 404,866 acres, or 27.9 per cent of the total area, in private ownership. Of this the assessor classed 1,083 acres as fruit land, 65,628 acres as irrigated land, 20,868 acres as dry farming land, 310,555 acres as grazing land, 4,337 acres as non-productive mining claims, 1,310 acres as railroad rights-of-way and 1,090 acres as town and city lots. There was 255,735 acres of government land open to homesteaders, 199 acres of unappropriated state land and 312,976 acres in national forests, the remainder being unclassified as to ownership.

**Transportation**—The principal narrow gauge branch of the Denver & Rio Grande Western railroad extends into this county as far as Montrose. A standard gauge line follows the valley of the Uncompahgre river northwest from that city into Delta county and on to Grand Junction. Another branch of this road, narrow gauge, extends southward from Montrose to Ridgway, where it connects with the Rio Grande Southern railroad to Durango.

**Highways**—There were 1,195 miles of highways in the county at the beginning of 1929, of which 236 miles were state highways and 960 miles were county roads. These included 64 miles of surfaced highways and 245 miles of graded roads, the remainder being unimproved. The principal state highway is the Rainbow Route, which follows in a general way the course

of the Rio Grande railroad through the county. A branch leaves this road at Montrose and runs southward to Ouray and Silverton. A secondary state highway extends from Montrose westward into Paradox valley, connecting with the Utah state road to Salt Lake City. This road has recently been improved and promises to become one of the principal outlets into Utah. In a general way the county highways in the eastern part of the county are ample for the movement of crops, while in the western part they are being rapidly developed.

**Educational**—The county is divided into 26 public school districts, in which are located 34 schools occupying 104 buildings and employing 103 teachers. These include six elementary and 28 rural schools. The county high school at Montrose and the branch county schools at Nucla and Olathe each offer a full high school course, while one year of high school work is given in the school at Cimarron. There are no private schools or colleges in the county. The average daily attendance in the public schools was 2,114 and the cost per capita in 1928, based on attendance, was \$97.81, which compares with \$134.24 for the state.

**Climatological Data**—The rainfall varies widely. In the northern part of the Uncompahgre valley it is less than 10 inches annually. It increases rapidly toward the south and southwest, being above 25 inches on the higher parts of the Uncompahgre plateau. From here it decreases rapidly toward the west, being about 15 inches in the valleys of the Dolores river and its tributaries in the western part of the county. The climate is generally mild and healthful. The summers are comparatively long and the winters are not subject to extremely low temperatures except on the Uncompahgre plateau. Where water is available for irrigation and soil conditions are favorable, this is one of the best agricultural sections of the state. The normal annual mean temperature at Crawford is 45.6 degrees Fahrenheit; at Montrose, 48.2 degrees, and at Redvale, 46 degrees. The normal annual precipitation at Crawford is 10.7 inches; at Montrose, 9.6 inches, and at Redvale, 15.0 inches. The average number of days between killing frosts is 137 at Crawford, 145 at Montrose and 130 at Redvale. The last killing frost at Crawford usually occurs between May 3 and June 12; at Montrose, between April 10 and June 8, and at Redvale

between April 27 and June 13. The first in the fall usually occur between September 14 and October 26 at Crawford, September 14 and October 23 at Montrose and September 14 and October 26 at Redvale.

**Tourist Attractions**—The completion of the Rainbow Route has greatly increased automobile tourist travel through this section of the state. There is much attractive mountain scenery and a number of picturesque canons in the eastern half of the county which are now being visited by a large number of people every year. The higher altitudes of the Uncompahgre plateau are not easily accessible at present, but roads are being rapidly planned for this territory. There is good trout fishing in the streams in most sections of the county. Buckhorn lakes is an attractive place, reached from Montrose. A trip from Montrose to Ouray, Silverton and Durango is worth many times its cost.

**Cities and Towns**—There are three incorporated towns in the county—Montrose, elevation 5,820 feet and population, 3,600; Nucla, elevation 7,000 feet and population, 250; and Olathe, elevation 5,346 feet and population, 550. Montrose, the county seat and principal town, is the center of a prosperous agricultural and horticultural district and is an important manufacturing and distributing center. Its population in 1920 was 3,581, compared with 3,254 in 1910. Postoffices, other than the incorporated towns are Bedrock, Maher, Naturita, Paradox and Redvale.

**Rank**—Montrose county ranks among the 63 counties of the state sixteenth in area, twentieth in population, thirty-fourth in assessed valuations, seventeenth in bank deposits, tenth in agricultural values, nineteenth in dairy cattle values, twenty-second in range cattle values, ninth in sheep values, twenty-first in swine values, twenty-seventh in metal mining, twenty-first in coal mining, twenty-fourth in manufacturing, forty-first in railroad mileage, twenty-first in highway mileage and twentieth in the number of motor vehicles.

**Banks**—There are four banks in the county, of which two are at Montrose and two at Olathe. Their aggregate deposits on December 31, 1928 were \$2,343,817.

**Special Opportunities**—The principal opportunities offered here are for agricultural and mining development.

There is water available for the irrigation of a little more land in the eastern part of the county than is now being watered. In the extreme west there is sufficient water to supply many times the land that is now being cultivated under irrigation. There are no railroads in this section of the county, however, and development has been

retarded by lack of transportation facilities and is still very slow. The mineralized area lies principally in the western part of the county and its development is likewise retarded by lack of transportation facilities.

**Commercial Organizations** — There are chambers of commerce at Montrose and Olathe.

## United States Reclamation Projects

**T**HERE are in Colorado two great irrigation systems constructed by the United States Reclamation service for the irrigation of arid lands in Mesa, Montrose and Delta counties, on the Western Slope. These two projects, which eventually will bring under irrigation approximately 135,000 acres, will represent a total investment of more than \$11,000,000. At the present time they are maintaining a population of 6,971 on the farms, a gain of more than 250 in the past two years, and including the towns within the limits of the districts the population is well above 15,000.

In 1928 the crops raised on the land within the projects had a total value of more than \$2,817,700, an increase of more than \$337,000 over the value in 1926. Within their limits are 5,702 horses and mules, 12,779 dairy and beef cattle, 24,723 sheep, 11,759 swine and 95,811 hens, turkeys and other poultry. More detailed information concerning each of the two projects is contained in the following data, obtained from the superintendent of each.

### THE UNCOMPAHGRE PROJECT

The area irrigated under this project lies in Montrose and Delta counties at an elevation of 4,900 feet above sea level at the lower end and ranging up to 6,400 feet at the upper end. The water is secured by diversion from the Uncompahgre river, supplemented by water from the Gunnison river diverted through the Gunnison tunnel into the Uncompahgre valley. The system is complete and represents an expenditure of approximately \$6,713,584. The water supply is considered adequate for the acreage to be irrigated.

A total of 60,818 acres was farmed under the project in 1928 and total crop production was valued at \$2,265,098, the principal crops, in the order of their importance, being as follows: Alfalfa, wheat, potatoes, sugar

beets, oats, corn, onions, apples and beans. Based on irrigable acreage, the average size of farms under the project is 39.2 acres, and based on acreage actually irrigated, 33.6 acres. The livestock census within the area showed 4,629 horses, 5,122 dairy cattle, 6,593 beef cattle, 10,267 swine, 23,854 sheep, 73,034 hens and other poultry. The farm population of the project is estimated at 5,741 and the town population, including Montrose, Olathe and Delta, at 7,400—a total population of 13,141 people wholly or partially dependent upon the irrigation of lands within its limits. The assessed valuation of all real and personal property in the project was \$6,094,704 in 1925.

There are only a few acres of government homestead land available in the project, but privately-owned lands may be secured by purchase. The United States government exercises no restriction relative to the sale of such privately-owned lands except that water rights for such land cannot be granted in excess of 160 irrigable acres. The terms upon which such land can be purchased depend entirely upon the individual transaction, and the price is based largely on the improvements, type of soil and location. The general character of the available land ranges from fair to excellent, two types of soil prevailing. On the west side of the Uncompahgre river the land consists generally of sandy loams, underlaid with gravel, while on the east side of the river the adobe type of soil predominates.

The approximate cost per acre for irrigation water is fixed by the adjusted cost of the project, the rate fixed at present being \$52.00 for what is known as Class 1 land. In accordance with legislation passed by Congress on May 25, 1926, a contract was executed by the members of the Uncompahgre Valley Water Users association, providing



for a reduction in the total cost per acre from \$70.00 per acre to \$52.00 per acre, and the term of payments is extended over a period of 40 years from December 1, 1922, instead of over a period of 20 years, as had been in effect.

Operation and maintenance charges in effect for 1929 provide for a minimum charge of \$1.76 per acre annually for lands on the west side of the Uncompahgre river, entitling such lands to four acre-feet of water, and a minimum charge of \$1.32 per acre annually for lands on the east side of the Uncompahgre river, entitling such lands to three acre-feet of water. Excess water over these amounts is furnished at the rate of 44 cents per acre-foot.

Inquiries concerning the lands within the project should be addressed to the Project Superintendent, Uncompahgre Project, Montrose, Colorado.

#### THE GRAND VALLEY PROJECT

The area irrigated under this project lies in Mesa county, near Grand Junction, at an elevation of 4,900 feet. Water is secured by direct diversion from the Colorado river. The project will cost approximately \$4,500,000 when completed. It includes the Gravity division, now 95 per cent complete, and the Pumping division, on which little construction work has been undertaken. The supply of water is adequate for the acreage to be irrigated.

Approximately 18,000 acres of the Gravity division is now being farmed, and in 1928 produced crops with a value of \$552,700, or an average of \$38.50 per acre cropped. The principal products were alfalfa, sugar beets, beans, tomatoes, potatoes and grains. The livestock census shows for 1928

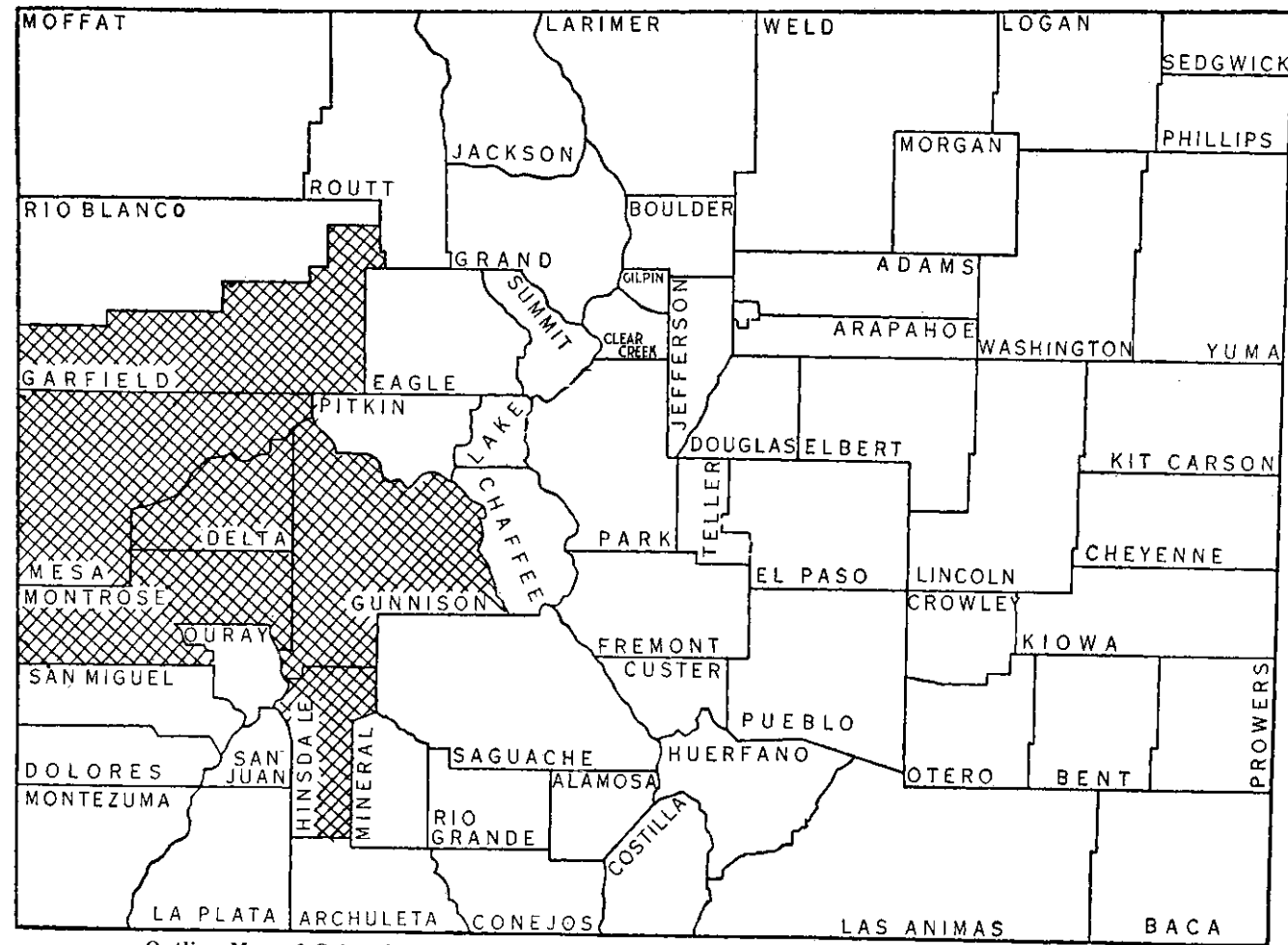
that there were on this area 1,073 horses and mules, 159 beef and 1,005 dairy cows, 869 sheep, 1,492 hogs, 7,877 turkeys and 14,900 hens. There are 275 families with a total population of 1,230 residing on the farms.

At the present time there is 300 acres of government homestead land within the Gravity division of the project and 3,800 acres within the Pumping division, but none of the acreage is open to filing at this time. It is estimated that there is 3,000 acres of privately-owned land within the Gravity division and 4,700 acres under the Pumping division which can be purchased with a small cash payment and liberal terms on the balance. The land is generally of good quality.

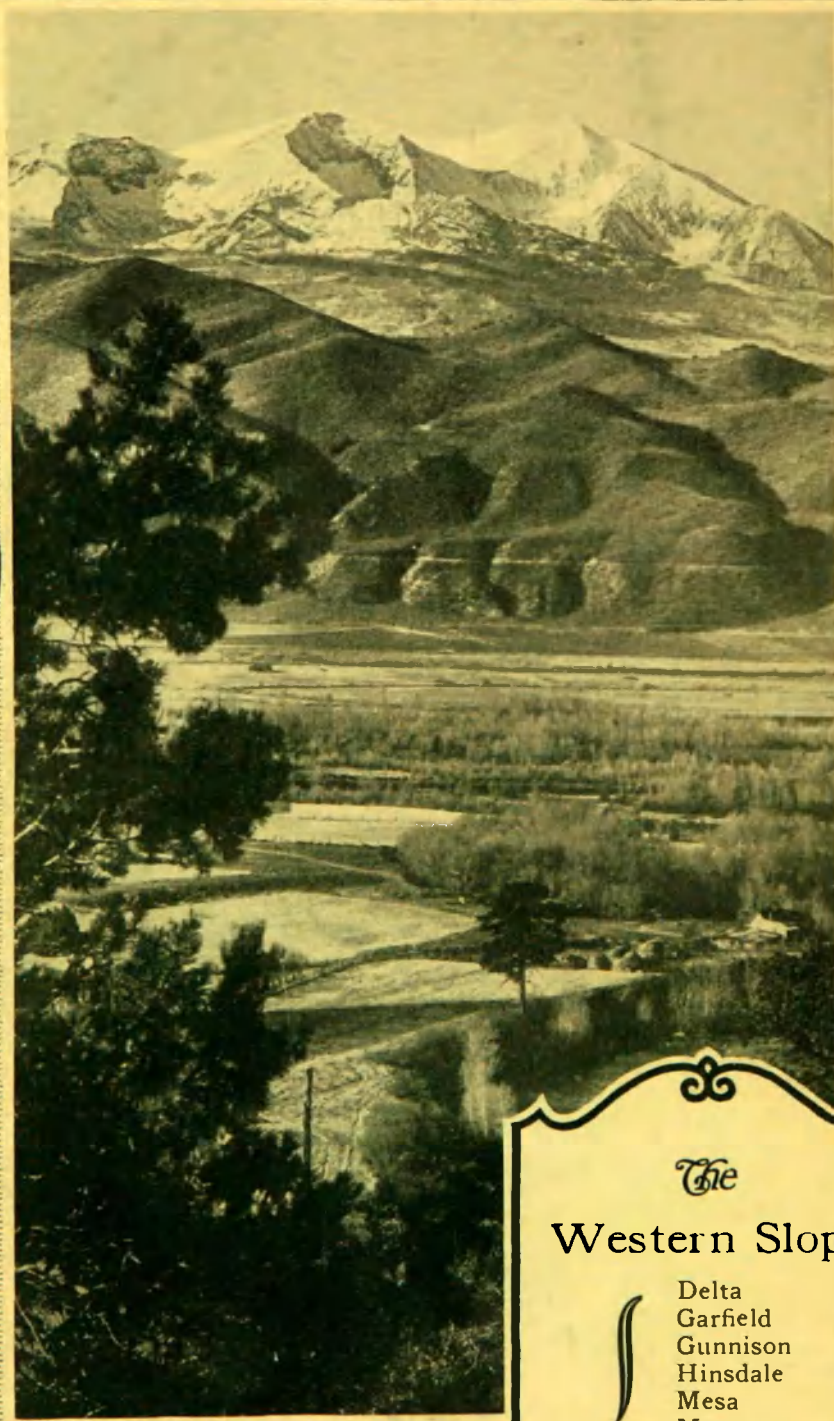
The cost of the water right for these lands has been established by contract with the United States at \$83.45, probably reduced by certain credits and payable over a period of 40 years without interest. The average maintenance charge is \$2.25 per acre annually, subject to change as operation and maintenance costs fluctuate.

In addition to this project the reclamation bureau has just completed the reconstruction of the irrigation system for an area of 10,000 acres of land in the Orchard Mesa Irrigation district. A total expenditure of nearly \$1,000,000 insures an adequate and dependable water supply for the highly fertile land, of which more than one-half is now in a high state of cultivation, nearly 4,000 acres being idle. This district offers unusual opportunities for fruit growing or general farming.

Inquiries concerning these lands should be addressed to the Project Superintendent, Grand Valley Project, Grand Junction, Colorado.



Outline Map of Colorado, Showing in Darkened Section the Counties Included in This Booklet.



*The*  
Western Slope

Delta  
Garfield  
Gunnison  
Hinsdale  
Mesa  
Montrose