

western slope are also included in the mountain division, while upon the plains there are to be seen pine, spruce, fir, and other coniferous trees. Over one-third (about three-eighths) of the eastern part of the state is prairie, the western part containing an area of 80,000 by 250 square miles, perhaps the most famous.

The plains, with the exception of a strip of undulating country, are in width from fifteen to twenty miles, extending from the foot of the mountains to the west, north, and south. Their depressions are not very deep, and the drainage of this vast area is toward the west. These lowlands are sometimes covered with water in rainy seasons, and give rise to the names of "floods" and "floods" but for the most part are dry.

Starting from the foot of the mountains, and running through the center of the state, is a line of high peaks, known as the "Divide." It is an important feature in Colorado's physical structure, and serves the purpose of dividing the eastern or plains portion of the state at its center. It is partly covered with valuable timber, and com-

as a general source of water supply. They have been especially useful in leading out the lines of pioneer travel, and silver discoveries of the state, and in recent years in affording routes for the railways through the mountain canyons to the mining camps, and beyond these to the new centers of industry in the state. All the principal streams have their source in the central portion of the state, flowing west, north, and south. Their tributaries are the creeks and smaller streams that rise along the mountain ranges throughout the entire system.

**OFFICIAL CENSUS OF COLORADO.**  
The official census gives Denver City a population of 133,859 compared with 100,000 for 1890. But every loyal Denverian and all appear to be loyal—will say that the city has 160,000 inhabitants. He will add, too, that it is growing at the rate of 10,000 a year. The population of the state from 1880 to 1900 is shown as follows:

1880	34,277
1890	100,000
1900	133,859

Denver is the twenty-fifth city in point of size. Twenty years ago Den-

ver was forty-ninth in point of size. Of the fifty-seven counties in the state, forty-two show increases in population since 1890, and in some of them the percentages of increase are very large, namely: Otero, 174.8 per cent; Archuleta, 156.2 per cent; Bent, 132.2 per cent; Mesa, 117.5 per cent; Delta, 116.5 per cent; Morgan, 104.1 per cent; Montezuma, 100 per cent; Proctor, 91.2 per cent; Hinsdale, 86.4 per cent; and San Miguel, 84.9 per cent. The fifteen counties showing a decrease are Baca, Cheyenne, Clear Creek, Custer, Dolores, Eagle, Kiowa, Kit Carson, Ouray, Park, Phillips, Pitkin, Sedgwick, Washington and Yuma.

**COLORADO'S RAILROADS.**  
The growth of that portion of the United States west of the Missouri river is due not so much to the attractions of gold, the charms of climate or the fertility of the soil as to the railways, which have made these natural advantages available and of benefit to civilization. The pathfinder of the many great lines which now thread mountain and plain was the Union Pacific railway, built over a barren, uncivilized waste, since transformed, through its aid to immigration and industry, into a country richly productive and wonderful in its boundless possibilities of wealth.

Then came the Denver and Rio Grande and Rio Grande Western, now under one system, with their marvelous push and enterprise, bringing wealth and glory to the state. Right well it is called the "Scenic Line of the World." It has scaled the cliffs, penetrated the canyons, climbed the mountains, leaped rivers and traversed the valleys of Colorado so completely that there is scarcely any scene of grandeur so hidden by nature that it has not been brought plainly and easily into view.

In addition to these there are a number of other railroads all doing a splendid work in the development of the state.

**FROM GOLD TO SILVER.**  
Following the advent of the railways in 1870, the search for gold and silver in the San Juan section in 1873, the discovery of lead-silver, carrying silver, in Leadville, in 1874, an early building of railroads and reduction began, which has led to a climax

in 1879. By this time the army of prospectors had stopped the search for gold and turned their attention to the discovery of lead-silver properties. In an incredibly short time the mines yielded silver in excess of gold, and the state stood at the head of the list as a producer of silver.

From 1879 until 1889 the search for silver mines continued. Through adverse legislation, the market price of silver declined until the demand for new silver mines was practically at a minimum. Prospectors again turned their attention to a search for gold. As a result, Colorado, for gold production in 1897, became the recognized leader and maintains that position, with large annual increases.

The transition of the state's production of precious metals from gold to silver, and later from silver to gold, is not only a tribute to the limitless resources of the state, but also to her citizens. It not only demonstrates the ability of both to meet the demand, but to take the lead in supplying the metal demanded. In this connection it should be borne in mind that Colorado has never ceased to be a large producer of silver, and the industry is still one of great profit, the fall and continued depression in the price of the metal to

ing men of the state, and led to the wonderful carbonate discoveries at Leadville, of which little was known until 1876. That year practically marked the opening of an era in the mining industry that has made Leadville and Colorado famous the world over. The first operations on an extensive scale began in the Carbonate Camp in 1879, and \$10,333,750, mostly in silver, was produced that year. In 1880 the production was \$15,095,152. Exclusive of \$20,000,000 produced from California Gulch and neighboring placers in earlier years, the yield of the Leadville district in gold, silver and lead from 1879 to 1892, inclusive, was \$179,710,297. The average maintained was about \$12,500,000 a year. In 1892 the production dropped to \$8,000,000, due to the low price of silver and the closing of all the large producers, owing to adverse legislation, culminating in the general demoralization of the silver interests in 1893.

#### RETURNING TO GOLD.

In the readjustment to new conditions after the crisis of 1893 the miner turned again to the search for gold. Important discoveries had already been made at Cripple Creek; gold was found intermingled with silver in the mines of the San Juan, and the Ouray and Telluride districts were growing in fame as well for their riches in the yellow as for their whiteness in the white metal, while Gilpin county steadily pursued its unwavering course in the production of \$2,000,000 and over each succeeding year in gold. The mines of the Leadville district were again started and production was largely from the reserves of silver ore already blocked out. While this was the general condition of all properties producing lead-silver-iron ore, the Breckenridge Hill mines and the surrounding properties, within the area locally known as the "Gold Belt," were opening unprecedented ore bodies carrying high gold values. With deeper and more extensive development in these mines, besides the many new lodes that have been and continue to be discovered within the old limits and in the widening limits of new territory, gold discovery continues and the veins increase in richness as depth is obtained.

#### CRIPPLE CREEK.

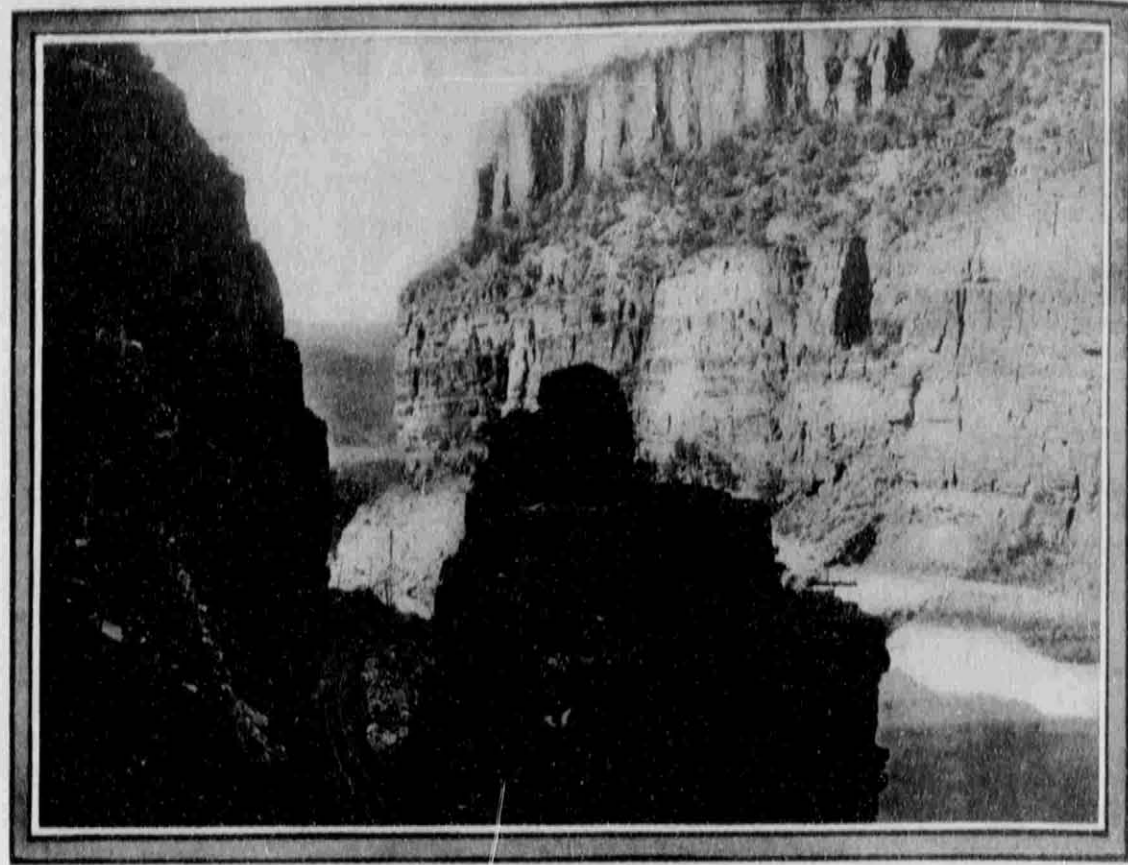
"The Mining Marvel of the Age" is one of the many terms applied to the great Cripple Creek gold district. To begin to relate the history of its rise and progress, or tell the story of its famous mines, would imply the exclusive monopoly of all the remaining pages of this paper, and it would be but the repetition of the story that has been written over and over many times and read in every land. It may serve the present purpose to say that until 1890 the forty square miles of hills and valleys comprising what is regarded as the Cripple Creek

Silver .....	\$22,743,038.00
Lead .....	101,673,419.70
Copper .....	13,904,348.86
Grand total .....	\$719,695,572.79

#### MANUFACTURES.

With the exception of Pueblo, which is coming to the front at a rapid pace as a manufacturing center, Denver distinctively leads the state. At Pueblo, the great anti-trust concern, the Colorado Fuel and Iron company is now expending some ten or twelve millions of dollars in the extension of its plant, the greatest in America, west of Pittsburgh. Last year this company produced \$12,000,000 worth of iron and steel. This year there will be a large increase over these figures. This company is essentially a western corporation, only a few years old, owns millions in coal and mineral lands throughout the country. It is said to have important holdings, through its agents, in iron county, Utah.

For metal work of all descriptions there are no less than ten foundries and machine shops in Denver. Seven of these engage extensively in the manufacture of mining machinery, while structural iron and steel and electrical works of all descriptions form a large part of their products. Other important establishments manufacture ornamental and architectural iron and all kinds of wire works, and the total



CANYON OF THE GRAND RIVER.  
One of Nature's Greatest Wonders.

Silver .....	\$22,743,038.00
Lead .....	101,673,419.70
Copper .....	13,904,348.86

value of the products of the various workers in iron reaches into millions of dollars.

An extensive branch of the Griffin Car Wheel works of Chicago, the largest establishment of the kind in the world, is located at Denver. The wheels are made exclusively of Colorado iron, and form no small part of the rolling stock of all the great railway systems traversing the western half of the continent.

One of the most courageous enterprises in Denver is that of the two large paper mills and sulphide fiber

ervals, the pioneer farmers built their homes, cultivated the lands and laid the foundations for the splendid agricultural development of today. But the extension of agriculture in a general way and the planting of cereals upon the uplands, except to a very limited extent, did not occur until about 1870, which ushered in the railroad era.

**SUGAR IDEAS FROM UTAH.**  
One of the more recent triumphs for Colorado is the sugar beet industry which she learned so well from Utah. Said President Doetcher, of the Nation-



IN PERRY PARK.  
Forty-four Miles South of Denver.

plant for the manufacture of news print paper and paper for commercial use. These mills were completed in 1892 at a cost of \$570,000, the sulphide mill in 1893 at a cost of \$250,000, and the combined plants constitute one of the largest establishments of the kind in the United States. These mills furnish a large part of the supply for the Denver trade, besides having a large market throughout Colorado and the adjoining states.

The cotton mills, with 20,000 spindles and 500 looms have reached an annual product of 9,000,000 yards. Brown sheetings, cotton flannels, bawling, outing flannels and ladies' dress goods, the latter to a limited extent, are the manufactures. Altogether there are not less than 500 establishments in Denver where the various articles manufactured enter into the commerce of the country.

#### AGRICULTURE.

During these earlier years, as immigration increased, settlements multiplied along the rich valleys of Boulder Creek, the St. Vrain, the Little Thompson, the Big Thompson, the Cache La Poudre, the Platte river and others of its tributaries forming the Platte valley, which with the Poudre, forms the great agricultural center of Northern Colorado, within the counties of Arapahoe, Jefferson, Boulder, Larimer and Weld, and now extending from the base of the mountains to the northeastern limits of the state, all this rich section of country being traced by the lines of the Union Pacific railway, the pioneer builder and among the earliest promoters of agricultural development in the state. It was upon these historic grounds that, while still the savage red man held dominion of the plains, the spirit of agricultural enterprise first found a permanent abiding, and in the valleys of all these streams, scattered about at wide in-

al Bank of Commerce, himself one of the big sugar men of Colorado, to a representative of the "News" a few weeks ago:

"Had it not been for the useful lessons we learned from those sturdy pioneer sugar producers in Utah, we probably would not have manufactured a pound yet. We watched their experiments, visited their farms and the factory at Lehi and saw that the success you folks were making there could be duplicated in Colorado, so we went



SQUAW AND PAPOOSE.

to work with a will and this year we will produce an estimated total of 155,000,000 pounds."

#### FINANCES OF THE STATE.

The following, from the abstract of assessments by counties, epitomizes the growth in assessed valuation from 1870 to 1901:

Year.	Ass'd. Valuation.
1870	\$41,432,946.37
1890	203,486,692.00
1900	216,776,356.00



A GROUP OF UTE INDIANS.

A Tribe of Red Men Well Known in Both Utah and Colorado.

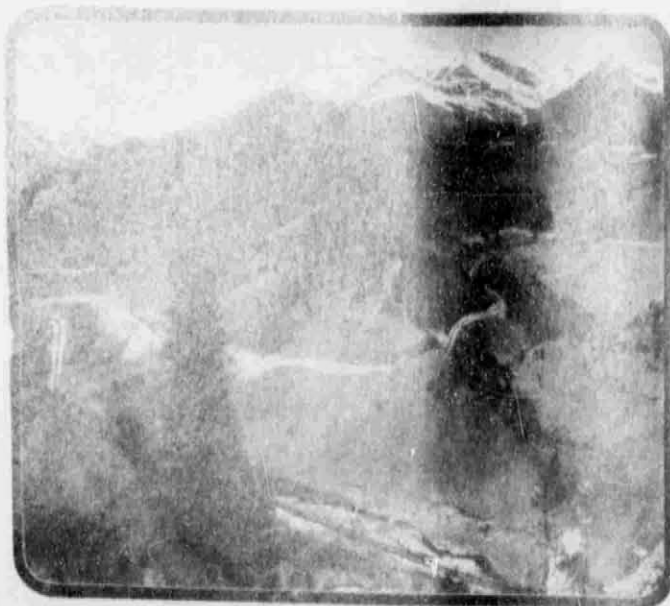
prices rich agricultural lands, which are watered by rains throughout the crop season. At the summit of this range is the famous Palmer's Lake. From this point the waters flow north and south down through the plains, as do all watercourses of the plains, northward to the Platte and southward to the Arkansas.

The mountains have physical features of varied and peculiar interest. The Continental Range crosses the state nearly north and south, near its center. Here the Rocky Mountains attain their greatest elevation—200 peaks nearly 13,000 feet high, and about twenty-five peaks from 14,000 to 14,400 feet high, being visible from Mount Lincoln. Between latitudes 30 deg. 30 min. and 40 deg. 30 min., which is nearly the central portion of the State, the chain is about 120 miles broad, consisting of three parallel ranges, running nearly north-northwest. The east one, called the Front, or Colorado Range, as seen from Denver, appears to rise abruptly from the plains, stretching with snow-clad summits from Pike's Peak on the south to a group twenty miles north of Long's Peak, a distance of 120 miles. Six of its peaks—Long's Peak, Mount Torrey, Gray's Peak, Mount Rosale, Mount Evans and Pike's Peak—are from 14,000 to 14,340 feet high, the latter altitude belonging to Mount Rosale.

#### WATER COURSES.

Within the mountain division of Colorado there is an abundance of water in its numerous rivers, creeks and springs, which, starting in little rivulets from the snow banks at lofty altitudes, or percolating through the rocks from mountain lakes (some between the peaks, ripple down the steep inclines and give their force to the valleys below, to pour their way in rock-bedded crystal streams, to the sea.

Thus the main principal rivers—the Arkansas, the North Platte, the Rio Grande, the San Juan, the Colorado, the White, the Yampa, the Gunnison, the Dolores, etc.—all have their sources in the mountains, and their waters flow down to the plains, where they are used for irrigation.



MARSHALL PASS—AMONG THE CLOUDS.  
Scene on the D. & R. G. Altitude, 10,858 feet.



CASTLE GATE, UTAH, ENTRANCE OF THE R. G. W. TO PRICE RIVER CANYON.

Guarding the way to Price River Canyon, through which the railroad runs into the very heart of the range, stands Castle Gate, similar in many respects to the gateway in the Garden of the Gods. The two huge pillars, or ledges of rock composing it, are offshoots of the cliffs behind. They are of different heights, one measuring 500 and the other 450 feet from the top to the base. They are richly dyed with red and the firs and pines growing about them, but reaching only to their lower strata, render this coloring more noticeable and beautiful. Between the two sharp promontories, which are separated only by a narrow space, the river and the railroad both run, one pressing closely against the other. The stream leaps over a rocky bed and its banks are lined with tangled brush. Once past the gate, and looking back, the bold headlands forming it have a new and more attractive beauty. They are higher and more massive, it seems, than when we were in their shadow. Huge rocks project far out from their perpendicular faces. No other pinnacles approach them in size and majesty. They are landmarks up and down the canyon, their lofty tops catching the eye before their bases are discovered.

a large extent being compensated by the mining of gold and other metals in combination, by the large and easily available bodies of silver ore encountered, by cheaper rates of transportation and smelting, and by the successful treatment of low grade ores by the many processes of modern invention. The annual production steadily aggregates a value of \$12,000,000 to \$13,000,000, and was \$12,488,774 in 1900.

#### DISCOVERY OF CARBONATES.

In a general sense the discouraging aspect of mining in the first decade relates to that period between 1864 and 1870, when, as it was supposed, all the placers had been well-nigh exhausted and when the miners were confronted with the impossible necessity of penetrating the mountain depths through the stubborn rock in the pioneer camps of Gilpin and Clear Creek counties. In the meantime the discovery and wonderful revelations of California Gulch, which forms the southern boundary of the city of Leadville, had paved the way to redemption for mining and all other industries of the territory. With only the primitive appliances of those days, not less than \$15,000,000 were washed out of the sands and gravel of the gulch between the years 1859 and 1865. Thus it was that between 1859 and 1870, before the era of real mining development began, the aggregate mineral production of Colorado had reached the sum of \$27,553,081. California Gulch restored the waning confidence of many, laid the foundation of fortune for some of the rich and well known min-

district proper, was only known as the cattle range of Mr. J. A. Myers, a wealthy real estate dealer and capitalist of Denver. By one of those simple occurrences which we choose to call accident, one of his employees found gold-bearing float, and dug a prospect hole upon a bed of trifling value. During the ten years following and ending in 1901 not less than \$100,000,000 in gold have been taken from the mines of the district. A large portion of the coin has returned to the mines for the development of still greater fortunes, but vast sums have been diverted to the highways of commerce and exchanged for the utilities that have added many years' advancement to the state.

#### CAMP'S TOTAL PRODUCTION. (As per Smelter Returns.)

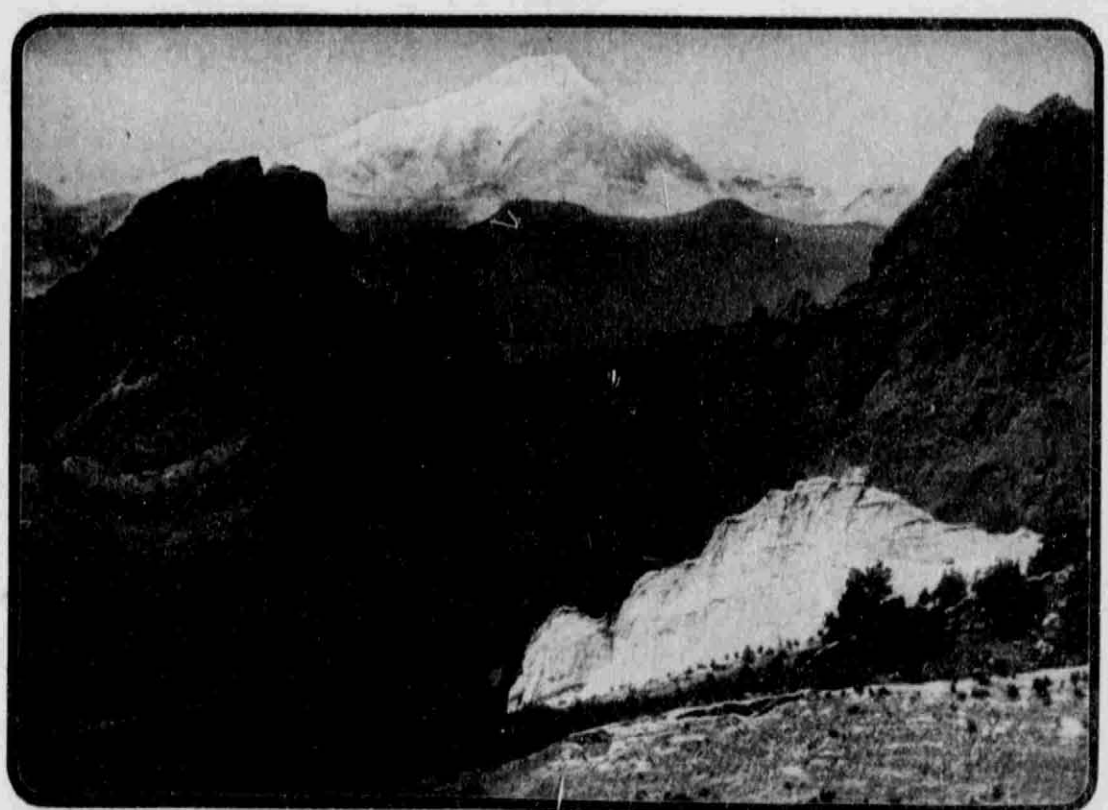
1891	200,000
1892	600,000
1893	2,100,000
1894	3,000,000
1895	8,000,000
1896	10,000,000
1897	12,500,000
1898	15,735,767
1899	20,000,000
1900	22,500,000

Total in ten years .....\$94,435,767  
Estimated for 1901 .....26,500,000

#### TOTAL STATE PRODUCTION.

The following table of mineral production for Colorado beginning in 1859 and ending in 1900 is embraced in the annual report of Commissioner H. L. Lee, in charge of the Colorado Bureau of Mines:

Gold .....	\$251,888,766.14
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PIKE'S PEAK FROM THE GARDEN OF THE GODS.  
Named in Honor of Lieutenant Zebulon Pike, an Intrepid Colorado Pioneer.