

MINERALS.

The preceding detail of the agricultural resources of California presents a most hopeful aspect, but, prolific as is the soil, extensive the area and genial the climate, the mineral resources will dispute with agriculture for the precedence. The mineral wealth lies buried deep beneath the soil, and while the surface is furnishing its stores of food and clothing, the hidden rocks are yielding their varied treasures, neither interfering with the other, but both rendering mutual assistance. Above and below—agriculture and mining—these are the twin sisters of wealth which constitute the pride and the grandeur of the Golden State. From north to south through our broad domain; from where our eastern boundary pierces the eternal snows to where the Pacific laves the golden sand, every hill and mountain range bear precious mines and veins of ore. No limit can be given to their extent, nor catalogue of their different names. Almost every valuable substance sought by the metallurgist in the soil and the rocks of the earth are found in greater or less abundance. As explorations continue, new discoveries are made, and with development new sources of wealth are opened.

In the extreme sense the word mineral includes every inorganic substance flowing from or taken from the earth, as springs or wells of water, clay for bricks, sand for mortar, etc., but in a more limited sense it is applied to metals and metalliferous rocks; oil, salt and medicinal springs; sulphur beds, and borax fields, and kindred matters. However it may be limited or extended, California, in every sense, is pre-eminent in minerals. But in discussing this resource of our State it would be almost impossible, if not unfair, to disconnect it from our neighboring State of Nevada, whose associations are so intimate that for all matters of business they should be regarded as one, though generally in this article we shall refer to the minerals of California alone.

The history of mining is coeval with the occupation of the State. The very earliest explorers of the Coast, Sir Francis Drake, Cabrillo, Viscaino, and others, gave glowing accounts of mythical mines, but, extravagant as were their descriptions, the realities of subsequent centuries have equaled the vivid imaginings of the romancing navigators.

The earliest gold washings known are in what are now called the San Francisquito hills, bordering the Santa Clara River in Los Angeles County. These were discovered and worked to some extent about 1830, and gold from them was sent by Don Abel Stearns to the United States Mint at Philadelphia. On the San Gabriel in the same county and in the same period gold was also mined. The profits attending these operations are not recorded, but the enterprise was not conducted with great energy, as the present condition of the ancient placers indicate. Silver and copper were also found in the same localities, but have not been mined profitably.

Notwithstanding the early assumption of mineral wealth, and the workings of the fields of Los Angeles, the mining history of the coast, to which general attention is paid, dates back only to the eventful day, the 19th of January, 1848, when Marshall picked up the shining particles in the saw-mill race at Coloma, which proved to be gold, and which discovery has proven of so much importance to the world. A new era in commerce, and civilization dates from that discovery. The world was set ablaze with excitement; new life was given to commerce; great enterprises were encouraged and sustained, and the progress of centuries was consummated in a decade. Revolutions in politics and governments as well as in business were effected, and man in intelligence, independence and enlightenment took a gigantic stride forward never to recoil. The influence was electric and world wide. Nations fraternized, and the civilization and power of Christendom rapidly encircled the globe. Human rights and liberal ideas gained the ascendancy over oppressive institutions and debasing prejudices, and the masses opened for themselves a field for the pursuit of knowledge, wealth and happiness. These grand advances were due almost exclusively to the gold discoveries in California, and the new life infused thereby. The country was fortunately in the hands of a free government, and rapidly filled with a brave, intelligent and law-abiding people, whose influence never ceases to be felt, and whose example has led to the great results claimed.

GOLD.—The royal metal claims our first attention. The auriferous belt is now known to extend through the entire length of the State, and at both extremes is mined extensively and successfully. This belt, however, cannot be claimed as continuous, at least as far as demonstrated from present development. The majestic range of mountains, the Sierra Nevada, rises through the peninsula of Lower California, and extends northward into Oregon, and turning to the coast westward of Mount Shasta. Throughout this range, with the exception of slight intervals, gold is found. It is difficult to localize it or define its extent. In veins and placers; in slate and porphyritic seams; in deep gravel beds and under the lava of dead volcanoes: in river channels and bars; in the alluvium of the surface and on the deep bed-rock of the ancient drift, gold is found in lumps and nuggets; in flaky, brilliant scales, and in infinitesimal dust. The quartz mill, the drift, the hydraulic and the sluice are used to obtain the glittering metal.

San Diego, the most southern county, is the most recent to develop her wealth in gold. In 1839, some placer gold was found in one of the gulches of the Cuyamaca Mountains, near the head of the San Diego River, and about fifty miles from the bay. This led to the discovery of quartz veins, and the Julian mining district was organized, shortly followed by the organization of Banner District, adjoining it on the east. The Washington mine for a period led the van, and many other ledges were discovered showing rich specimens of gold, and a sharp excitement was created. The Golden Chariot, now Chariot Mill, Ready Relief, Redman, Owens, Stonewall Jackson, and many other veins have been discovered, and worked with energy and profit. Six or seven quartz mills, with an aggregate of forty or fifty stamps, are employed in reducing the ore, which is usually of a high grade, from \$40 to \$250 per ton, although the veins are generally small, ranging from one foot to fifteen feet in width. The product of these mines for the period since their development has been large, nearly \$1,000,000 in the year 1874, and from several, high dividends have been paid. The Bladen mines are a new discovery about twenty-five miles south of the peak of San Bernardino, and are opening with fine prospects.

The success of these mines, being in a locality not until recently regarded as in the golden belt, has given a great impetus to progress in San Diego County, giving employment to large numbers of people, furnishing a market for produce, paying fortunes to the owners, and adding new resources to the State. To what extent explorations will connect these districts with the northern districts of the State, time only can tell. At present, a barren space intervenes, and we travel northward to the gold mines of Holcomb Valley, in San Bernardino County. Here is an extensive region upon the northern and western slope of the great peak of San Bernardino, and rich placers as well as paying quartz lodes are found. These mines have been worked since 1850, and have produced large quantities of the precious metal. Mining and prospecting is conducted with vigor, and discoveries of a most encouraging character were recently made. Holcomb Valley, Bear Valley, Gold Mountain, Lytle Creek, and other places, are prominent mining localities.

Some fifty or sixty miles northwesterly are the ancient placers of the San Gabriel and the San Francisquito, never extensively, and now indifferently, worked. The irregularity of the mountains from the San Gabriel in Los Angeles County to Fort Tejon in Kern County sends us wandering for the chain, and through this distance are found but few prominent gold mines. At Solidad, in Los Angeles County, near the summit of the dividing ridge, veins of gold-bearing quartz have been found and worked to some extent, and at Tehachipi, in the southern part of Kern, hydraulic washing has been successfully conducted for the past twelve or fourteen years.

FIRE INSURANCE COMPANY, of Hartford, has been identified with every large fire in the country.