#505

HISTORY

El Dorado County, California.

CHAPTER I8.

MINING INDUSTRY. RIVER MINING.

Historical proofs show that gold at all times has been an article of highest value. The Jews, as well as the old Egyptians, knew it, and were in the habit of wearing jewelry manufactured out of it for ornaments ; the name already speaks for the derivation, and up to this day there is no other people in the world that can equal the Jewish people in fondness for jewelry. The gold used at the time so profusely for ornamentation, both in household and temple and for personal decoration, was the gold from Ophir, brought by the Phoenicians from the fabulous land of Ophir, the existence of which has remained a secret to historians as well as scientists. The old Grecians adopted this use of gold from Egypt, but found some more useful appliance for the precious metal. They were the first to make a table of the value of the different metals, and gold, as the rarest known and most precious of them was selected to give the general value of all other things ; a talent of gold gave the base by which to estimate other valuables. Thus, being only a nominal value, the Romans went a step further on, making it a real article of exchange in trade. The first gold pieces of money in circulation were only rough shapped, flattened, plain slugs ; but the Roman Emperors soon improved this kind of coin by giving it a regular octagonal our round shape, and embellished it with their images, and this habit has been in

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general use down to our day, and always has been the shape in which the sovereigns were the most favorably looked at, and were loved by their subjects without reserve. The gold in use by both of these nation, was procured in some parts of Greece, particularly Thessaly and the islands of Thasos, while the river valleys of northern Italy, together with the hills bordering the Alps on the southern side of the Pyrenees sent their contributions to Rome.

Spain, at the time when only a Roman province, took great amounts of gold out of the river beds of her streams. The Arabian conquest of this country, in 710 and 711, it is presumed, was for no other purpose than the possession of her gold mines, at least the very first act of this conquest was the occupation of her famous gold mines at Astorga, in the Province of Leon. These, as well as the mines on the river Tago, were placers producing the richest gold, and continued to give out rich until the middle ages ; and when these sources gave way, Spain was lucky enough to be indemnified by the discovery of greater riches in her own provinces of Mexico, Peru and the East Indies. In England the alluvial soil in different parts of the United Kingdom, since the reign of Queen Elizabeth, from time to time was yielding quite considerably of the golden harvest of the world. The richest gold mines of Europe, however, are those of Hungary, at Schemnitz and Kremnitz, the latter have been worked since about one thousand years, and is the gold here taken out of veins that are running through the white quartz rock containing some silver besides ; while the former are located in a small basin between barren mountains, being worked now on the 600-foot level (600 feet below the surface). and are known to have been worked continuously since the twelfth century, partly in private enterprise, partly in government possession. Russia, also, is a great contributor to the world's supply of gold, and her mines in the Ural, up to the discovery in California, and after that, in Australia, were one of the principal sources.

All parts of Asia, East India and most of the islands of the Indian Archipelago were yielding gold in great quantities, and have not been exhausted. China, as well as Russian Siberia and Japan are known to possess great riches in gold also ; the same may be said of the eastern coast of Africa.

On this continent gold has been found and mined for in Brazil, and in those parts of South America bordering in the Andes and Cordilleras to the west, from Chili northwards through Central America and Mexico. More recent discoveries, however, have shown that the two great chains of mountains running further north, the Rocky Mountains and the Sierra Nevada, through British Columbia and into Alaska, are just as rich as the Andes in the southern half of the continent. Previous to these discoveries North America was not considered very highly, concerning the gold mining capabilities, the Appalachian gold-fields, running through Virginia, North and South Carolina, Georgia, Alabama and

Michigan Flat
Pilot Hill (Centerville)
Hoggs Diggings
Murderer's Bar
Spanish Dry Diggings
Greenwood
Georgetown
Kelsey Spanish Flat
Mosquito Valley Newtown
Grizzly Flat
Indian Diggings
Saratoga
Latrobe
Shingle Springs
Negro Hill
Salmon Falls
El Dorado
Cold Springs
Diamond Springs

Placerville (Hangtown)

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Tennessee, since their discovery in Cabarrus county, North Carolina, in 1799, were the only places where gold had been found, yet never in great quantities.

The specific gravity of gold is 19.5, that is about 19 times heavier than water of the same volume ; with the exception of platina this is the greatest of all metals, as well as it is noted for its softness and greatest malleability. It is inelastic, and its resistance against the influence of the atmosphere, not being subject to oxidizing or rusting, makes it nearly imperishable, and it accounts for very highly for the reflection of the ancient people to adopt this metal before others for the coinage of money, as its qualities make it so much more fit for this purpose. The great adaptability of this metal is by far not yet exhausted, as may be seen by the variety of uses that modern industry and science is making inventions for : the use of gold in dentistry, doubtless of modern origin, is nevertheless nothing else than based upon the fondness for precious ornaments--we could do just as well without it ; in photography, however, the gold is used in scientific solution--as chloride of gold--to reproduce the picture as falling in through the lens-glass into the dark camera, upon a thus prepared plate of glass, a process of modern science, and, alas ! how old in nature. Geologists, perhaps, are able to tell us approximately the age of photography, from the samples that nature has left in the slate--for instance, at George's slide, El Dorado county, or at Volcano, Amador county, etc., brought out by mining from three to five hundred feet underneath the surface of the earth. It is photography produced by sunlight and chloride of gold, copying the profusely growing ferns upon the slate, then in formation. Another proof for Ben Akiba's : "Nothing new beneath the sun, everything has happened already before!"

The greatest quantities of gold in most countries have been met with in the sand of rivers, and on the surface of the earth, in small grains or pieces of irregular form and size, called "placer gold," and California made no exception to this rule ; the gold discovered by Marshall, on the 19th of January, 1848, in the Coloma mill-race, was placer gold, and all the mining done here during the next five or six years after the discovery was in the placers of the river and creek beds, and of the alluvial soil boarding these streams.

The discoverer, however, and his followers had not the remotest idea how to make the thing profitable, and up to the 7th of March, 1848, when Isaac Humphrey, from Georgia, went on to construct the first rocker, they had not proceeded further on the manner how to gather the precious metal, but still picked up the pieces with their fingers ; the farms and the ships did not bring any knowledge either ; the instruments first in use were butcher-knives, iron spoons and small iron bars, to pick the gold out of the crevices. Very few of them were conversant with any kind of a method of extracting the gold from the ground where it had been embedded. But the greed of gain and the peculiarity of the

American people to pick up and improve helped along. I. Humphrey had introduced the rocker, Baptiste Ruelle came to mine, as he had learned it from the Mexicans, using the *batea*, and soon hundreds of different vessels or bowls, resembling the Mexican implement--Indian baskets as well as any kind of a flat tin pan, was going to serve the purpose, and rockers were roughly made out of hollow trees or dug out of logs, or nailed together out of boards ; everything of this shape from three to six feet in length, and set on an incline, suitable of being rocked back and forth while the gold-bearing gravel was filled in and water poured upon it. And numerous were the different implements brought along from the East by many of the adventurers, all based upon the ideas of the *batea*, or the rocker, but incomprehension of the fundamental idea had complicated the simple apparatus to such an extent that all proved senseless and useless. The mill-race of Coloma, together with the peculiarity how the gold had been discovered therein, ought to have taught them the way to use the water in ground sluices or ditches, but considerable time had to pass by before this principle was taken up and introduced in the practical mining. Others knew or had seen the mining after tin in Cornwall, where the dirt, for generations back, had already been washed through boxes or sluices, made of boards, with cleats nailed across the bottom piece for gathering the metal ; but none thought of anything alike to appropriate for the gold-mining. Gold was found plenty, and the excitement took away all better reflection, and it was given to the old masters, experience and time, to teach the miners economy and thoroughness in exercising their business.

The active mining, going out from Coloma, jumped right away down to Mormon Island, where one of the richest gold deposits was found, and from there the new-comers were up again along the banks of the American river, and every bar or place of deposited gravel inside the river-beds, was taken up by some parties. And all these river-bars contained gold, some more some less, the best strikes generally were made within one or two feet of the bed-rock. but even the bed-rock, for a depth of from two to twelve inches, was filled up with the golden flakes. The extent of these bars were very different, from one to fifty acres, perhaps more, they consisted in the main part of gravel, from five to thirty feet in depth ; the surface oftentimes covered with soil, and a luxury of vegetation rooting therein, or they were covered with a pile of gigantic trees, that had been torn away and swept down, but the winter's flood had not been strong enough to move them further on-- they were left to rot and make the foundation for another vegetation. In some instances these bars were denuded of the gravel and the gold found lying in the rough places of the bedrock ; and thousands of dollars' worth of gold in small flakes or nuggets, have been gathered from pocket-like exposed places one individual in a single day. To separate the gold from the gravel it was imbedded in, the gravel was filled in the bowl or pan, and by moving or shaking the latter under agitation of the water, the gold getting free, by virtue of its specific gravity, settled down on

the bottom of the pan, while the lighter material, gravel, clay and sand, was washed over and thrown out. Using the rocker the work was done in that way : the gravel was thrown in the hopper or riddle, a back and forward motion given, while water was poured upon it ; the fine particles running through the perforated iron bottom or screen, and flowing out of the lower end, leaving the fold in the riffles prepared for it ; so soon as the finer particles passed through, the hopper was removed and emptied of the coarse gravel. Two men, one to shovel, carry and pour in the gravel, the other to manipulate the rocker, on a convenient river bar, would wash thus from 300 to 400 buckets of gravel a day.

The first improvement in the

was the introduction of the "long-tom," by some Georgia miners, early in 1850, working in Nevada county. This is a trough made of boards about 12 feet long, eight inches deep, and from twelve to fifteen inches wide at the head-end and double this dimension on the lower end ; the wide portion terminates in a riddle of perforated sheet-iron, so curved that nothing goes over the end or sides. It requires a man to attend to it with hoe and shovel, to stir up the gravel and water as they enter, washing all that is possible through the riddle, with the shovel throwing the coarse gravel away. Beneath the sheet-iron is a box with riffles, where gold is retained with a small quantity of sand, from which it has to be separated by washing in a pan or rocker. A constant stream of water was running through the iron tom, which was provided with dirt by one or two men. To secure sufficient water for the use of the tom, wing-dams were built upward from the bar, and by their means and the thus built races, the water of a portion of the stream, or the whole of it, directed towards the head of the tom.

The tom, however, was but an intermediate step in the way of improvement in mining machinery, only proceeding the sluice. By experience, the miner had found out that the longer the tom the easier the work and the greater the success. Others had carried their water in a rough kind of a trough or flume to the tom, and occasionally had shoveled some dirt into this sluice, to be washed down with the water through the tom, and they found out that the gold had not followed their intention, but remained in that flume or sluice, thus making the tender on the riddle of the tom unnecessary ; and taking up the hint, they worked from that time on only the sluice. The sluice was a success as may be seen by the statement of lots of miners, that ground which would not pay more than three or four dollars a day to the man, worked with toms, yielded from eight to ten dollars per day when sluices were applied. This was deciding for the sluices, and they were adopted all over the mining country. The size of the sluice-boxes are a twelve-inch board for the bottom, and two ten-inch boards for the sides. For catching the gold,

cleats were nailed across the bottom-piece of the sluice, and numerous are the improvements that are in use still for this purpose, as "riffles," in the sluice-boxes of the hydraulic mines : From the rough cross-cut blocks sawed from big trees, all about six inches think, to the iron-armed scantling to be set in the sluice-box across or lengthways, either.

Starting from Mormon Island, and going up the American river, there were the following principal river bars, inside the line of El Dorado county :

Condemned Bar, where one of the first built bridges connected El Dorado with Placer County. A few miles further up the stream was Long Bar, and opposite Doton's Bar ; during the summer months from 1849 to '52, there were not less the 500 miners engaged in working on both these bars. The afterwards grain-king, Isaac Friedlander, may be remembered here by old-timers ; he occupied a little brush tent near the upper end of the bar, where he worked a single-handed digging and a rocker all by himself, and laid the first foundation of his future wealth. Here, at Long Bar, could be found John C. Heenan, better known in after years as "The Benicia Boy," then only an unknown youth ; his first prize fight was forced on him here by a much older fellow. The following bars, with the exception of one, were all in Placer county : Beale's Bar, Horseshoe Bar, Whisky Bar, Beaver Bar, Dead Man's Bar, Milk Punch Bar and Rattlesnake Bar ; at the latter bar Richard H. Barter, alias Rattlesnake Dick, worked as an honest miner until led astray[1]. Whiskey Bar was in El Dorado county ; here a wire-rope bridge was built across the river, and finished in the fall of 1854, which circumstance may give to it the full right to the epithet of the p*ioneer wire suspension bridge* in the State. On the Middle Fork of the American river, from the junction upwards, we have " Oregon Bar, Louisiana Bar, then New York Bar and Murderer's Bar, all in El Dorado county, the mines of both of the latter bars, together with those of Vermont, Buckner's Bar and Sailor's claim, on the opposite river bank, in the summer of 1850, consolidated for the purpose of a grand fluming operation, the united membership of the named five companies was over 500, and they had agreed to join flumes, covering more than a mile along the river. No saw-mill was in existence then in that part of the country, the nearest one being at Coloma, and it seemed a vast undertaking, but it is a well-known fact that the inventive genius always appears in the right time, in case of necessity ; just so here, two men of Murderer's Bar, Stephen Tyler and Lefingwall made a proposition to build the flume for $6 per linear foot, the flume to be twelve feet wide and three feet high ; provided the company would grade and prepare the way for laying the flume. The proposition accepted, the contractors went right on, procured an ordinary horsepower, connected it with a circular saw, and the saw-mill was improvised. A band of 150 horses were bought, as as many as could be attached at one time were hitched up to the horse-power, and the mill was run as perfect as could be expected ; nay, as could not be

surpassed at that time. To the balance of the horses was given ample time to restore their strength by pasturing off the neighboring hill-sides, but these hill-sides were soon giving out, and the old horses and mules followed suit, until the hill-sides were scattered with the bleaching bones of the poor brutes as a memory of the pioneer saw-mill of the northern part of El Dorado county. When it became visible that the contractors would not complete their work that was it was proposed to use canvass for lining the flume, and here all the sailor-boys, and others that were able to use a palm, found there work and a half an ounce wages per day. Meanwhile the grading of the flumeway went on, superintended by Otis T. Nichols ; and in this company one could see men of all kinds of professions--doctors and lawyers and divines, just as the society of the mining districts at that time was made up. At the falls above, a dam was built for the purpose of turning the water from the river to the flume. Major Harry Love, afterwards noted for his connection with the capture of the bandit Joaquin Murietta and other Spanish cut-throats, when sheriff of Alameda county, superintended this part of the work. But the work, whereupon months of labor of hundreds of men had been spent, just finished, sometime in September, 1850, was pitilessly destroyed a few days after the last nail had been driven, and swept away by the waters of an early rain-storm that had prevailed high up in the mountains. Thousands of men witnessed the march of the floating flume, that did not break up for miles, the canvass keeping it together as a whole for miles of travel.

Here, at Murderer's Bar, a ferry was carrying the travel from Sacramento by the road to Salmon Falls and Pilot Hill, through Cave valley into Placer county, to Yankee Jims, Iowa Hill, etc. Further up the river, there are : Rocky Point Slide, Mammoth Bar, Texas Bar, Quail Bar, Brown's Bar and Kennebec Bar, all on the opposite side of the stream ; Wildcat Bar, Willow Bar, Hoosier Bar, Green Mountain Bar, Main Bar and Poverty Bar, however on the El Dorado county side. The population of some of these bars was quite large, as least large enough that the enterprising business firm like Lee & Marshall of the National Circus, found it profitable to visit the bars in the river-canyon, and give exhibitions at places like Rattlesnake Bar and Murderer's Bar. Proceeding, we come to a number of bars named after the nationality of those who started the first work : there is first, Buckeye Bar ; next is the American Bar, Sardine Bar, Dutch Bar, Spanish Bar, African and Drunkard's Bars ; only Spanish Bar is located in El Dorado county. Here the stage road from Georgetown to Todd's valley and Yankee Jim's crossed the river by means of one of the first built wooden bridges in this section of the country. Further up are : Ford's Bar, Volcano Bar*, Sandy Bar and Grey Eagle Bar, Yankee Slide, Eureka and Boston, on the El Dorado side of the river, and Pleasant Bar on the opposite ; Horseshoe Bar and Junction Bar, at the mouth of State ravine, and Alabama Bar on the El Dorado side. All these bars on the Middle Fork of the American river, from Oregon Bar upwards, after the lowest estimate in the summer of 1850 not less than 1,500 men ; originally working on shares, and the

assessment on the share paid out daily, so that those who had been drunk or absent did not get any part of it ; but this after a while caused dissatisfaction and was the reason of breaking up the co-operative work and commencing work on claims. A claim was a spot of ground fifteen feet wide on the river front, which, if there was a bar on the opposite side of the river, ran from the center of the stream back to the hills, but otherwise, there being no bar, extended clear across, to an indefinite point on both sides of the hills.

The bed of the river had been tested in many places and found to be exceedingly rich, frequently yielding several ounces of gold to the pan. For this reason the river at many places was entirely drained off in another bed, and the location by this means, changed to an extent one hardly could recognize it again.

One of the richest and most wonderful strikes in river mining was made in the Middle Fork of the American river, at a place known as "Big Crevice," crossing the river in a diagonal line at Murderer's Bar. J. D. Galbraith broke in here first in 1850, and worked the spot to the depth of twelve or fifteen feet, well back under the hill, on the El Dorado bank. The operations of 1851 enabled the working of the river bed, and disclosed the continuation of the crevice across the stream. A dyke of limestone here crosses the country, and this singular hole seem to have been a cavern which became filled with sediment rich in gold, perhaps before the present river system existed, as there is no gravel between the sediment. At the time of the discovery there was on over-laying stratum of gravel about two feet deep on top of it, then followed a layer of soapy sedimentary slum, which did not contain a particle of grit, and yielded from one to four ounces to the bucketfull. But the work was dreadfully annoying ; but four men could work in the excavation, two of whom were constantly bailing out water, one had to throw out the top gravel stratum as it fell in, while the fourth was grappling up the gold-bearing slum. During this operation the gold could be seen laying upon all sides of the pit in apparent handfuls. The hole could be placed in such condition as to enable the fourth man to extract the paying stratum for only about three hours a day, and eight days was all that work could be done at the spot in that summer ; the whole yield during that time, however, amounted to $4,600. From time to time the crevice has been worked again since ; the best progress in this work was made under the superintendence of Mr. M. W. Manning, when it was worked to the depth of about ninety feet and in some parts up to sixty feet wide, yielding rich ; but the work was troublesome and dangerous for the workmen, on account of big wedge-shaped limestone rocks that are interspersed with the slum, and notwithstanding the bracing and stulling, some of them would sometimes glide out of their position endangering the work down below in the pit. No work has been done on the big crevice for a few years, but Mr. Manning's opinion is that a million could be taken out there, if a method can be adopted to work it thoroughly.

HOOSIER BAR.

The Hoosier Bar Gold Mining company, Mr. T. E. Terry, superintendent, have adopted a new invention in the line of hydraulic mining, by using the pressure of the water to elevate the gravel out of the pit, about forty feet below the water-level of the Middle Fork of the American river, to such a height as the sluice-boxes. One stream of water forces the gravel into the lower extremity of this pipe, whence it is driven upward with great force by another stream from a "Little Giant." By this means, for every 100 feet of pressure in the driving current a column of water and gravel can be driven upward forty feet. The Hoosier Bar elevator is giving eminent satisfaction and has opened up some very rich ground.

The dam built at Murderer's Bar, in 1853, was the largest and best at all the river bars, and was able to stand the high water of the flood of the following winter ; at this bar the water, rocks and pay-dirt all had to be raised by steam and water-power. A company had been organized for the purpose of tunneling about the falls through a bluff of rocks, just above town, which enterprise enabled several bars within two miles up the river, that never had been worked before, to commence work to good advantage, where the jam at the falls had always made the water flow back a long distance.

The following is the estimated amount of gold as taken from some of the bars on the Middle Fork of the American River :

Valcano Bar	$1,500,000
Greenhorn Slide	1,000,000
Yankee Slide	1,000,000
Sandy Bar	500,000
Menken Cut Bar	200,000
Mud Canyon	3,000,000
Nigger's Bluff	500,000
Gray Eagle Bar	800,000
Eureka	100,000
Hose Shoe Bend	2,500,000
Boston	100,000
American Bar	3,000,000
Willow Bar	600,000
Junction Bar	150,000
Missouri Canyon	800,000
Grizzly Canyon	300,000
Otter Creek	400,000
From all the hills	300,000
Total	$16,750,000

The first mining company that was chartered in the State was the "Boston Bar Company," of the American river, in El Dorado county ; the charter was granted in 1850, and extended over the whole Boston Bar ; the ground has yielded great sums of money, and was sold to a company of Chinese in the spring of 1861, for $5,000.

On the South Fork of the American river, bars were not as numerous as on the sister stream, there were Dutch Bar, Kanaka Bar, Red Bar, Stony Bar, Ledge Bar, Missouri Bar and Michigan Bar.

On the Cosumnes river there were : Big Bar, Michigan Bar, Buck's Bar, Pittsburgh Bar, and Wisconsin Bar.

SONG OF LABOR : THE MINER.
BY J SWETT.

The eastern sky is blushing red,
The distant hill-top glowing ;
The brook is murmuring in is bed,
In idle frolics flowing ;
'Tis time the pick-axe and the spade
And iron "tom" were ringing ;
And with ourselves the mountain stream
A song of labor singing.

The mountain air is cool and fresh ;
Unclouded skies bend o'er us ;
Broad placers, rich in hidden gold,
Lie temptingly before us ;
The lightly ply the pick and spade
With sinews strong and lusty ;
A golden "pile" is quickly made
Wherever claims are "dusty."

We ask no magic Midas wand
Nor wizard-rod divining ;
The pick-axe, spade and brawny hand
Are sorcerers in mining :
We toil for hard and yellow gold,
No bogus bank notes taking ;
The bank we trust, though growing old.
Will better pay by breaking.

There is no manlier life than ours,
A life amid the mountains,
Where from the hill-sides rich in gold,
Are welling sparkling fountains :
A mighty army of the hills,
Like some strong giant labors
To gather spoil by earnest toil,
And not by robbing neighbors.

When labor closes with the day,
To simple fare returning,
We gather in a merry group
Around the camp-fires burning ;

The mountain sod our couch at night,
The stars shine bright above us ;
We think of home and fall asleep
To dream of those who love us.

*A political duel was fought at Volcano Bar, on March 20th, 1854, between J. S. Landon and David E. Hacker, such occurrences being then quite fashionable ; dispute arose from a publication by Hacker about the Senatorial election and the duel resulted in the death of Landon.

[1] I was dying of curiosity when I read this sentence... how was he led astray? What did he do?... well I found the answer on a site called pioneermining.com under the History of Auburn page, it follows:

One of the Gold Country's first stagecoach robbers was a young man from Quebec named Rattlesnake Dick Barter. For seven years he terrorized the highways of the Northern Mines, holding up stagecoaches with his armed gangs of bad men. Apprehended several times, the Rattlesnake always managed to escape. A sheriff's posse finally caught up with Barter and a fellow gang member in 1859. After a brief exchange of gunfire, in which Barter was shot twice, the two outlaws fled into the night. The posse found Barter the next morning about a mile down the road. The 'Snake was dead, shot through the head, the killing blast either self-inflicted or from his partner's gun. A note clutched in his hand read: "Rattlesnake Dick dies; but never surrenders..."