The Ancient Channels, [Written for the Press.]

Much has been said and written on the subject of the ancient river beds, or, as they are more properly termed by some writers, "The Dead Rivers of California." Theories have been set up and each writer has taken pains to demonstrate his own particular theory. One writer says the Dead River extends from Plumas county on the north to El Dorado on the south. Another that it ranges from the northern part of Sierra county to Smartsville, in Yuba county, and still another, 4hat it runs in a northwesterly direction from Dutch Flat to North San Juan.

I do not propose in this article to contradict any of these theories, but simply adopt the idea upon which all appear to harmonize, viz: That a vast channel does exist and that traces of a dead river are too numerous to admit of a doubt as to its former existence, and wherever found it furnishes abundant proof of its own genuineness and the uniform richness of the gravel with which it is filled.

The question whence it came or whither it went, may be very interesting to the geologist or the antiquarian, but to the commercial world and the miner the great problem is, ""Where can a spot be found on the line of this dead river where the gravel can be removed and the immense wealth therein contained set in circulation for the benefit of mankind ?"

In general terms this can be answered by the assurance that everywhere the old channel is rich.

While in Calaveras county and El Dorado the miner is hoisting the gravel to the surface from a depth far-below the beds of the present streams; in Placer, Nevada and Sierra counties he is conveying the waters of the highest mountain streams in ditches and canals to points on the same channel hundreds and in many instances thousands of feet above the beds of the present streams.

Prominent Mining Localities on the Channel.

Beginning with the fact that this ancient channel is tilled with gravel from fifty to seven hundred feet in depth, of almost unvarying richness, and that wherever systematically worked, whether by drifting and crushing, sluicing or hydraulicing, it has paid the miner for his labor uniformly in proportion to the amount of gravel washed. The next question is what is the most profitable way to work it, and what localities afford the greatest facilities for extracting the gold from the gravel ?

At Smith's Flat, El Dorado county, and at Chili Gulch, in Calaveras county, the channel has been worked for many years; but being below the present stream beds, the gravel has had to be hoisted by steam or water power, which left but a small margin for the miner—still it paid.

At Gold Run, Forest Hill, Bath, Michigan Bluffs and Dutch Flat, in Placer county, it has been successfully worked by hydraulicing. At You Bet, Red Dog, Quaker Hill, Blue Tent, Columbia Hill, North San Juan, French Corral and Smartsville, in Nevada county, it has been worked by the hydraulic process though more scientifically and on a much larger scale than at the former places.

The Formation.

All these mining operations develop the fact that the auriferous deposit contained in this channel, throughout its entire length and breadth, is composed of gravel mixed with clay, sand and boulders. The strata differing from each other in color and the size of the boulders and gravel, as well as in richness; the richest stratum being nearest the bed rock. The color of these strata is a deep blue at the bottom, fading gradually to a bluish gray toward the surface, and in exposed places assuming a reddish tinge showing the presence of iron; the blue coloring of the lower strata being caused by the decomposition of vegetable matter buried among it, there being great quantities of petrified wood of all varieties found all along the channel.

In the channel proper the gravel is very compact and can be-washed clean only by "air slacking,"

crushing or by the use of powder. The latter has proved to be the most successful method yet adopted. A few hundred kegs of powder will shake up a large bank of gravel which will then wash easily, and the miner can remove it very rapidly by hydraulicing.

Necessary Facilities.

The proper facilities for this class of mining are not found in every mining region along the old channel. On the contrary, there are comparatively few places where we find all the essentials for a successful mining operation combined. There are three things necessary to constitute a good hydraulic claim: first, a good bank of pay gravel; second, a plentiful supply of water; third, a good "dump" or outlet for tailings and other debris from the claim. Many of the places named above possess the first two of these requisites, and lacking the third, fail to pay half so well as other claims of no greater richness, but possessing a good dump.

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