

DISTRIBUTION OF GOLD

New and Unexpected Formations Wherein Found.

An interesting extract from a letter read before the society of engineers at New York:

"Recent discoveries of new gold districts in limestone, granite, sandstone, and porphyry awaken prospectors to the fact that almost any rock may be gold bearing, and that gold ores may be found in almost any geological formation.

"The professional prospector limiting his observation to a set of rocks with which he is familiar may pass over and fail to recognize the very thing he is after, on which some less intelligent individual may blindly stumble.

Many of the important districts have been discovered by accident, and by unskilled, or inexperienced prospectors. Gold mining in the Ragged Top district of the Black Hills was started by finding silicious gold ore in the limestone.

"After years of prospecting for silver lead ore, builders of silicious gold ore, averaging \$100 per ton in carload lots, lay on the surface in quantity. Miners by the score had traveled across the ground for 20 years, but it remained for a discouraged prospector 'catching at a straw,' to have a sample of these boulders assayed and to discover their high value.

"Accidental discoveries occur in every mining camp: A farmer sinking a well, a woman berry-picking, a boy hunting rabbits, a picnic or fishing party, the upturned root of a tree blown over by the wind, and other accidental circumstances and agencies have led to the discovery of mines. In the aggregate, however, the largest proportions of mines have been discovered by professional intelligent prospectors.

"As there are so many unpromising looking rocks that may carry gold, instead of merely crushing and panning for free gold as formerly, now, the prospector carries his portable assay furnace with him, and assays everything he comes across that is at all suggestive of ore possibilities. Such work is adding much to our knowledge of the distribution of gold. During my examinations in 1897, of the Carboniferous limestone plateau country, encircling the central area of the Black Hills, of South Dakota, I found that only in the northern portion of the plateau had mineral deposits of note been found, and it had been generally assumed that the mineralization of this portion was confined to that area. I found, however, a general mineralization extending in zones or belts throughout the region, especially where more or less silification of the beds had taken place. In these I found gold from \$1 to \$5 per ton. Unaltered sandstones and limestones, as a rule, showed nothing or but a trace. As a result of 'assaying everything' for gold, the chemists of Cambria Coal company, which operates a coal seam at the base of the Cretaceous, west of the limestone plateau, finds their coal to yield from \$1 to \$5 per ton gold. Such coal might yield a metallurgical fuel for smelting gold or silver.

"Gold frequently occurs in substances forming rich ores without showing a visible trace of its presence, as for instance, in the sylvanite tellurgy of Cripple Creek. There are occurrences however in which, though probably present, not even the telluride minerals can be seen or separated, for example, the silicious ores of the Ragged Top district containing neither precipitated free gold, nor any heavy minerals carrying gold; no one has yet shown the form in which gold exists in ores of this class.

"Similar ores have been found in the Gunnison region, Colorado, ranging in appearance from an amorphous hornstone

flint; with conchoidal fracture, through varieties of jasper, opal and chalcedony. Sometimes they are hard, at others porous and varying in color from gray to yellow red and purple; at times they are white or pearly, or of waxy luster, and of a wine color. Ore of this character from Ragged Top district often assays \$100 to \$200 per ton, but fails to yield concentrates carrying more than \$10 per ton in gold, and shows not a trace of free gold.

"The presence of tellurium has been assumed in these but not proven, and it appears probable that here is a class of deposits in which gold exists in some unknown conditions, combined with a silicious gangue, or matrix. We do not know all the possible forms in which the precious metals may exist.

"That new districts are not found more frequently is due to the miner restricting his research to those formations and to that character of ore with which he is familiar, and may, therefore, for a life time, walk daily over high grade ore in plain sight, which in appearance so differs from his notions of what constitutes an ore, that he regards it as barren rock."

RECENT DECISIONS.

Affecting the Location of Quartz Mining Claim.

In constructing a notice of location of a mining claim there is no rule of necessity, such as exists in the construction of deeds which requires that the terms "easterly" and "westerly" used without qualifying language, shall denote due east and west.

A notice of location of a mining claim, which gives the course of the location as running a certain distance in a westerly and easterly direction from the point of discovery until the boundaries are definitely located by monument, reserves from entry by subsequent locators the surface area which might be included in any location so made that if a line be drawn lengthwise through the center of the claim from the west center end thereof through the point of discovery to the east center end thereof said line will lie east, 45 deg. north, and east, 45 deg. south from the point of discovery.

If a locator of a mining claim, when posting his notice of location, in addition to giving the general course of his vein, places his monuments at the center of each end thereof, thus giving definite notice to subsequent locators as to the meaning of his notice, he is bound thereby, and cannot thereafter, during the time prescribed by law for perfecting his location, change the course of his location to the prejudice of intervening rights.

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B. C. NICHOL,
General Agent, Portland, Ore.

Dr. J. L. Reavis, dentist of La Grande, is in town after a four weeks outing in the mines. He will do some work for some of his La Grande patients before returning.

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