

*Mining Districts near Kamloops
Lake, British Columbia.*
By G. F. Ronckton.

(Continued from last issue.)

Due north of this mine lie the Trent and some other claims in which copper occurs in the same kind of rocks, which at one period were evidently united to those of Cherry Bluff. Cinnabar and copper also occur there in dolomite. The granite wherever it carries copper is considerably altered and traversed by veins of dolomite and lime. On the Trent claim, the principal deposits of copper seem to run irregularly through zones of decomposed granite, which are heavily charged with iron pyrites. The strike is north and south, the dip being nearly vertical, and their character is somewhat altered where they are crossed by the calcareous veins, which lie nearly flat.

Before leaving this area of gabbros and diorites, the writer may say that it would seem as if all the ore deposits in them are veins of replacement, the vein filling of which has been deposited by thermal waters rising along the line of fissures in the gabbro and kindred rocks. These waters would replace the calcareous components of the country rock by oxides of iron, which were probably derived from the pyroxene of the same rocks. The copper would be obtained from volcanic rocks in the district. Hornblende and labradorite would provide a large quantity of lime, and would thus be largely the source of the lime veins. Magnetite occurs in grains disseminated through the rocks of Cherry Bluff. The veins usually have one well defined wall,

which is the line of the original fissure through which the heated vapours ascended, one wall being indistinct, and the scanty evidence which we have before us at present gives reason to believe that the ore will be found to cross over to the other side of the wall, as the solutions found it easier to decompose the rock on that side of the fissure. One such well marked instance may be seen at the Glen iron-mine. The writer may say, however, that there are other theories. One old miner has informed him that the mountains are hollow, and that the metalliferous solutions are boiling and "sizzling" inside still. We have not as yet sunk or drifted far enough to prove the truth of this opinion, but perhaps some "bloated capitalist" in the old country will undertake this somewhat dangerous operation. If these subterranean furnaces could be safely tapped, we should have another source of heat for industrial purposes.

Copper Creek.—The developments on Coal Hill and Cherry Bluff have not so far afforded us sufficient data for forming theories as to the influence exerted on the formation of ore-bodies by different rocks and contacts, which to some degree detracts from the influence that scientific men would take in those areas. This is not, however, the case with the Copper creek district. Here it is well seen what are the rocks affecting the deposition of ores, and it seems as if any work done along certain contacts which are barren when first attacked will show up ore, although not necessarily paying quantities. The writer will deal first with the copper ores of the district, as the consideration of the