APPENDIX

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ART. V. - THE RUDISEL GOLD AND COPPER MINE OF NORTH CAROLINA. - By Stephen P. Leeds, Geologist.

The Rudisel Mine is immediately contiguous to the town of Charlotte, Mecklenberg county, North Carolina, the north-east line of the property adjoining the town lots.

A Report upon the Reid Mine, and also further remarks upon the Rudisel Mine, will be inserted in the June Number of this Magazine.

The Rudisel Gold and Copper Mine of North Carolina

It is situated upon a hill, near the centre of the property, about one hundred feet in elevation, which rises somewhat abruptly, and is intersected by the vein, which passes entirely through it.

The tract holds an extent of ninety acres; some forty acres, being that portion which lies next the town, is nearly level; the remaining fifty acres comprise that section which is situated upon the hill and immediately around it.

The geological formation of this tract is the same as that of all the gold-bearing strata of this rich region--a chloritic or talcose slate, reposing upon granitic rock, and intersected by veins of ferruginous quartz, carrying valuable working quantities of gold, terminating in yellow sulphuret of copper highly charged with gold.

The course of the vein is North 30° East, by South 30° West; the dip, or underlie, is 45° West. It varies in width from three to four feet, and extends over half a mile. With the exception of that portion of it which occupies the face of the hill, and the immediate summit, it has never been worked. This unopened part of the vein is destined to afford as great returns as any point of it which has been explored, if any reliance may be placed upon an unbroken continuation of the same favorable outcrops over its full length. There is also another vein running parallel with the main vein, forty yards west of it, across the whole tract. The main vein is a continuation of the mineral lead of the Bush Hill and Charlotte Mines on the north course of the lode, and on the south it continues into the Wilson Mines. It cannot be possible, with such rich extremities, and a proven rich centre, that the unopened part of the vein on this tract can be otherwise than extremely valuable.

The vein can be worked down to any depth; and, as the formation is uniformly regular, it is highly probable that the main and the west vein unite at the depth of some five hundred or six hundred feet. If this hypothesis is confirmed—and there are many indications to believe it eventually will be—the yield of ore at this junction will be beyond the bounds of computation. Two such veins uniting at that depth must give results such as are but seldom found. The indications alluded to are the continuous contiguity of the veins, the slight variation of dip, and the absence of the upheaval of the granitic rock beyond the hill on the course of the veins. There are some minor facts, unimportant in themselves, yet held in connection with the main evidence, which tend to strengthen this conviction—such as those peculiar mineral characteristics, which, like individual features, ever appertain to every mine; the proportionate admixture of vein and gangue—stone, and others, valueless separately, but powerful in combination.

The branch or stream, from the mine to Bissel's pond, has been worked over some two or three times, producing a very liberal supply of gold each time, affording rich wages to the workmen engaged in the search. This branch passes at the foot of the abrupt face of the hill, and has received its gold from the gradual wearing down of the hill through a long series of years.

The line of this tract lies for about half a mile on the borders of the railroad, and the turnpike passes through the same portion of it, in that part which approximates the town, rendering about forty acres highly desirable for building lots, which are already in demand and sought after. It would be a matter of consideration whether it would be most profitable to sell now, or retain the property for a still further advance in value. That it must eventually attain an increased valuation is highly certain.

Capt. Penman, who had charge of the mine some fifteen years since, drove a level from the hollow to the mine, about one hundred and fifty feet on the course of lode in west vein. A cross-cut was opened east from the level, and, upon reaching the main vein, cut into it four feet, and drove on it, each way taking out ore, the vein keeping four feet wide. On the north end, he followed on until the surface was nearly reached, then sunk a shaft on west side of vein down to water, and worked out ore on back of lode. At the south end, he drove on Chevalier's old working, which had been worked down to depth of eighty feet. He cleaned out this old engine shaft, and put in a column of pumps, but could not free it from water, the feeder being too strong, and the engines too old and not in good working order, the boilers leaking badly. At this point of operations the mine was abandoned, for want of means to drive forward, and it has not been worked since, except such surface work as has been carried on by the rough and imperfect means of the resident miners in this vicinity, who have operated solely on their own account and responsibility, realizing from two to ten dollars per day each man.

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