stopping all mining activities for two years. This was not a very auspicious start for what later was to become Mecklenburg County's largest gold mine, but it correctly foretold a future pattern of buying and selling, often under foreclosure conditions, that affected the Rudisill mine much more than the McComb mine.

About 1828 Samuel McComb sold an interest in his mine for \$6,000<sup>54</sup> to Mr. Humphrey Bissel, a native of New York, <sup>55</sup> who changed the mine's name from the McComb mine to the Charlotte mine. Mr. Bissel, a man of intelligence and foresight, was a graduate of Yale College and was one of Samuel Morse's co-workers on the invention of the telegraph. He had traveled extensively in Europe "and studied the metallurgical methods practiced at Freiberg, [Germany] Swansea and other metallurgical and mining centers". His first connection with Mecklenburg gold mining appears to have been in 1828 when he became part owner of the Capp's Hill mine. After acquiring these two most important mines in the county at that time, he used his knowledge and ability to establish the most advanced ore processing operations of his day. In 1829 he installed at the Capp's mine the first stamp mill ever used at a gold mine in the United States. <sup>57</sup>

Further expansion of mining activities was underway in 1829 when Mr. Bissel, having gone into partnership with a Mr. S. C. Barker, purchased Hayes' milling complex along Sugar Creek. They converted the flour mill and cotton gin house into mills for crushing ores by the Chilean method and erected another mill for the same purpose. The sawmill was not changed as it was necessary for furnishing lumber and

support timbers for the mining operations. The frame of the dam was strengthened by the addition of stone work and rock pillars at the wings to help guard against breakage. The mine and mill both became known as the St. Catherine properties, a name the mine never relinquished. The mill, however, was commonly referred to in future years as Bissel's Mill.

Humphrey Bissel was able to capitalize greatly on his investments for, in addition to crushing ore from the St. Catherine mine, the mill served as a custom grinding mill for several other mines in the vicinity and by 1830 he was also manufacturing rope at the St. Catherine Mill. 61

Upon purchasing McComb's mine, Bissel initiated deep mining by sinking a shaft some 60 to 80 feet on the gold vein. 62 William Blanding of Camden, South Carolina visited both the McComb and the Capps Hill mines in 1828 and recorded in his diary descriptions and sketches of the operations. 63 The shaft sunk by Bissel at the McComb Mine followed a vein which was inclined about 45 degrees downward and toward the northwest. From the bottom of this shaft a horizontal tunnel had been dug to mine gold-bearing quartz from the vein (figure 5). The inclined shaft contained rails on which ore cars were raised and lowered. Referring to the shaft, Blanding wrote "In this is a rale (sic) way that has two cars or carriages to bring up the ore--when (one) comes up the other goes down. In the house is a wheel (probably a windlass) which is turned by one man and brings up at each time a barrel of water and as much ore". (See Blanding note on figure 5). Dr. Richard Knapp, a historian for the Division of Archives and History of the North Carolina Department of