in 1890. Pebbly Cambrian quartzite, which strikes N. 40° E. and dips 75° NW., crops out on the south side of the pit.

47. Emery or Beatty mine shaft.—This shaft, about fifty feet deep, is same distance east of the open pit. Good ore was obtained.

48. An old shaft mine, worked by Laubach & Riegel.

49. This shaft mine was worked for thirteen years by Dr. Madden. The workings have now caved, and the size of the pits formed shows that a large amount of ore was mined.

50. Wassergass iron mine.—The mine is unique in that about fifteen feet of coarse pebbly sandstone, which dips to the north at an average angle of 75°, forms a distinct footwall. The ore was formed by the replacement of certain layers of the quartzite and scarcely affected the adjoining strata. The ore was mined on both sides of the road.

51. Extensive workings are indicated by the size and depth of the old pit. The Crane Iron Co. worked the mine. One shaft was 67 feet deep.

53, 54, 55. This group comprises a line of old workings that seems to indicate a persistent ore body that was rather closely confined to a definite horizon in the Cambrian quartzite. As the rocks dip steeply to the north and strike parallel to the hill the old workings appear as a wide and deep trench along the side of the hill. The ore is said to have been found in decomposed slate and clay. The mud-dam deposits from these mines are dug and used for building sand.

56. Thomas Richard's mine.—“In the open cut this is only worked in the east end, where there is a good body of ore, which seems to be cut off further east by white clay. The ore occurs apparently intraslated in the white clay. To the west a shaft has been sunk down 107 feet to the ore. In going down a body of damourite slate and clay was struck, which at a greater depth turns into a blue clay. Underneath the ore there is said to be black dirt, but none could be seen. The bed is said to be 27 to 40 feet thick, but this had to be taken on hearsay evidence, as the mine was so closely timbered that it could not be measured. East of this another opening has been made in the roadside, but so recently that only stripping was being taken out and washed.”

57. Richard's mine.—“Leased by the Glendon Iron Company. This is worked by open cuts 6 to 8 feet deep. But little is being done here, and the sides are so washed as to show nothing of the nature of the ore deposit. It seems, however, to be stripping and not a true bed.”

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