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Back to the Past: A column highlighting the natural history of the Watershed

The Durham Iron Mines, Tunnels, &c. 1876

By C. Laubach. (For the Doylestown Democrat.)

Thinking a description of the mines, tunnels and geological position of the Durham iron hills would be of interest to some of your numerous readers, and as we but lately took a stroll through and among them, we will try to give you a feint description of the places of interest in rotation as mentioned above. --- First taking a look at the *Haematite Mines* in an orchard about one-fourth of a mile northwest of Cooper & Hewitt's steel and iron works. Here we find immense heaps of debris, and excavations to the extent of about twenty acres, the excavations are from twenty to fifty feet in depth. In prospecting for ore, the ground has been removed and re-removed to get at the ore and facilitate its removal. Most of the ore to a depth of fifty feet has been taken out, below that depth it is considered that the mining is unprofitable at the present time on account of the serious interference of water. This ore is usually massive, with a smooth or stalactitic surface, and compact fibrous structure, sometimes earthy. It occurs in connection with rocks of all ages, but in this particular locality, it is found in close proximity to an extensive bed of secondary limestone. This is one of the most valuable ores of iron.

Following a wagon road due west, we pass excavations one after another, showing an immense amount of labor and money expended in bringing this valuable mineral to the surface. Following this road up a gradual incline about half a mile, we come to a very steep incline where we find an entirely difference kind of ore called "Magnetic Iron Ore". Ascending the incline (angle about 74 degrees) about one hundred feet, we come to the outer opening of the "Rattlesnake Mines," and tunnel. Here we found the courteous and polite superintendent of this tunnel, Mr. Bray, who, after our business was made known to him, took us to a side building used as a blacksmith shop, and furnished us with a tin-cup with a nozzle and wick for burning whale oil. Having thus prepared ourselves to enter this subterranean abode, we followed our guide. The entrance is furnished with a door to keep out the cold and prevent too great a draught. Pushing the door open, our conductor lighted the lamps and showed us how to hold them. We began our heavy tramp through mud and over debris, and soon reached the interminable darkness where not a ray of light can penetrate save from our lamps. The constant dripping of water and the peculiar echo of our steps and words, made the journey through these sepulchral and contemptible passages anything but pleasant. There is a narrow track running the whole length of the tunnel, which is used to remove the ore and debris to the light of day.

How soul-inspiring the wonderful circulation of water underground! Here and there is a spring of purest water gushing from the sides through the various strata of rocks. There is always plenty of water in the tunnel. We splash on however through mud and wet places, and have to mind that we do not get some extra bumps on our heads, or accidentally stumble over some tool implement or stray rock in our way.

All at once our guide commenced to descend a ladder, we following his example. Down, down we went on the treacherous and slippery rounds of the ladder, grasping them quite firmly so as to make sure are of not losing our footing, which at the best seemed to be quite insecure owing to our inexperienced and awkward manner of descending. At length after descending eighty feet in this manner, we reached bottom and found ourselves in another tunnel, the same in size and appearance, only this had no horizontal opening. After chatting with the workmen awhile, we began another

decent by means of a ladder; this time, however, only to the depth of fifty feet. Here we found quite a number of men at work on an immense vein of ore. The vein in the shorter diameter being not less than fifty feet, and extending to unknown depths, showing that the ore, comparatively speaking, is almost inexhaustible. The above mentioned series of tunnels have been worked for at least twenty years in succession, and may last an indefinite time yet. This ore of iron occurs in extensive beds. Its structure is granular and massive. No ore of iron is more generally diffused than this, and none is superior for the manufacture of iron. It is usually met with in gneiss, syenite, chlorite slate, hornblende and granite. In this mine, the gangue, or ore bearing rock, is generally chlorite slate, syenite and gneiss. The perpendicular depth of this mine is about 280 feet. The day and was cold, and it was raining outside, but down at this depth it is always summer. The mean temperature summer and winter is about sixty-five degrees. Having seen all that was to be seen here we now began to return our steps up the ladders and inclines, and after a hard scramble, found ourselves out in broad-daylight again, and found that we had spent upwards of three hours in exploring this series of tunnels.

NEW TUNNEL

About five hundred yards west of this series of tunnels is another tunnel called "New Tunnel," on account of its being the latest and most recent of all the tunnels in this locality. This tunnel is considered to be quite an achievement; and if the time, labor and money is taken into consideration, it may well be termed such. But to give the reader a better idea of the magnitude of this work, we will try and describe it:

Editor's note: The last page of the article is missing. Transcribed and may contain errors due to transcription into digital format.