

are at times somewhat tortuous, being apparently interrupted by some disturbing force. Whether these irregularities are the effects of faults and dislocations, or are due to the beds having been originally formed by slow deposition from water, in irregular crevices of the enclosing slates, I am unable to determine, without a personal examination of the ground. I am inclined to believe them the results of disturbing causes. These slates are represented as being particularly hard, of a fine red color, and very difficult to blast. They are eminently characteristic of the haematite beds, and in the present instance led to their discovery.

As I have said, no shafts have as yet been sunk upon these beds, operations having been heretofore confined to a simple quarrying of the ore, within a few feet of the surface. The proprietors, however, are now preparing to open a large number of the veins on one level, which, when accomplished, will give "a face of about 40 feet in height."

The beds of haematite, above described, together with furnaces employed for the reduction of the ore, are the property of a company known as "The Woodstock Charcoal Iron Company," composed of two members only, Mr. Norris Best and Mr. Ellis Smith. They employ in the raising of the ore an average of about forty men. The ore is conveyed from the mine to the furnaces, which are situated on the river bank, a short distance above Woodstock, by waggons during the summer season, and by sleds in winter, thus employing, on an average for the year round, about ten pair of horses, with their necessary drivers.

The furnaces, used in reduction, are somewhat similar in construction to ordinary lime kilns, but unlike the latter, are provided with grates and doors, and are of a model not now generally employed. They are thirty-nine feet in height from the hearth to the top; the "boshes" (or inverted conical cavity above the crucible,) being nine feet nine inches in width. The fire brick employed in the lining of the furnace, is obtained from Sturbridge, England. The hearthstones have, I believe, been also imported until recently, when the company have endeavored to procure substitutes from the sandstone beds of the Tobique. Whether the latter have proved satisfactory, I am not yet informed. They are said to have been obtained at a distance of about forty miles from its mouth, probably from the red sandstone formation above Plaster Island. Mr. Best informs me, that it is rather a quartz rock, than either a true sandstone or a grit, but its red color would seem to imply that it belonged to the formation above referred to. I should think that good hearthstones might be found at a variety of places on that stream.

The machinery for maintaining the "blast," consists of two steam engines of thirty horse power each, with two "blowing" or "air cylinders" of sixty inches diameter, and five feet stroke, respectively, the latter being capable of generating sufficient wind for these furnaces. The wind, thus generated, is conveyed through ovens placed near the top of the furnace, these ovens being themselves heated by the gas escaping from the shaft, by

NOTE.—I have already remarked upon the existence of similar beds on the Nepisiquit River, and the probability of future discoveries in that interesting region.