of rarer occurrence. The masses of ore appear flattened, almond-shaped, and drawn out parallel with the foliation of the enclosing rock. In the direction of the strike, they thin out, or branch off and disappear. Their average thickness is from two to six yards, but it sometimes reaches twenty yards. The iron works of Ulefoss, Fossum, Fröland, Näs and others, are all more or less dependent on these deposits for their ores. The situations of these iron works seem to have been chosen, less with a view to economically transporting the ore, than to taking advantage of the magnificent water powers, which exist everywhere in Norway. The fuel is charcoal, mostly from pine, and it has also to be carted considerable distances. The blast furnaces used, are partly similar to those used in Sweden, and partly to those used in Germany. They are thirty feet high, from four to four and a half feet wide at top, and from seven to eight at their widest part. The percentage of metallic iron contained in the mixture to be smelted, ranges from 25 to 42 per cent, and the average production of raw iron from a furnace is $2\frac{1}{3}$ tons daily. $1\frac{2}{5}$ tons of charcoal are consumed in the production of one ton of iron. The refining takes place on what are called "frisch hearths," and hammers are used in the further mechanical treatment of the resulting lumps of malleable iron. The iron produced, is like the Swedish, celebrated for its purity. It is shipped to Hamburg, and from thence mostly to America.

Large quantities of titaniferous iron ore occur at Ekersund and Snarum; that from the former locality contains 43 per cent of titanic acid. Phosphate of lime has also been worked and exported from the neighbourhood of Kragerö. With these I must close this sketch of the economical minerals of the primitive gneiss formation of Norway, and turn to compare it in its various features with that of Canada.

The parallelism of the Laurentian formation of Canada with the gneiss of Scandinavia was long ago pointed out by Sir William Logan, and in the more recent reports of the Geological Survey, especially those of 1853–56, we find the features of the Canadian formation fully described. The rocks there occurring are essentially the same as those of Norway. Keilhau's characteristic gneiss corresponds to the granitic or micaceous gneiss of Canada, and the hornblende gneiss of Norway is the syenitic or hornblendic gneiss of the Laurentian formation. Even the *eye gneiss* variety appears to exist here, and from the description, to be syno-