THE MINERAL DEVELOPMENT OF NOVA SCOTIA.

The following average of analyses from the paper already referred to will show the general composition of the seams of this district :---

Moisture						1.19
Velatile combustible matter						29.10
Fixed carbon						60.63
Ash				•••	•••	9.34
						100.26

The coals are used largely for steam purposes, for iron working, and an excellent coke is furnished by several of them.

The seams are entered by slopes following their inclinations; levels are driven at intervals of 400 to 600 feet, and bord-and-pillar work carried on to the rise. Where the pitch of the seam permits, a gate-road is driven up on the full pitch of the seam, and bords turned right and left. By means of a platform and a loaded box running on wheels and connected by a rope passing round a drum provided with a brake, the platform and loaded coal-tub overpowers the balance-box and carries the loaded tub down to the level. The empty tub and platform are raised in turn by the weighted box. This permits of rapid handling of boxes at angles too great to allow of horse roads. At heavier angles the coal is run to the levels in shoots. Longwall work is adopted in the thinner seams, the shoots being opened out as the face advances inward, and lengthened as it advances upwards.

In the Pictou district careful attention is necessarily directed to the ventilation, as the seams give off much gas, and the "back balance" system of working requires ample air-supplies. Maruaut and Mueseler safety-lamps are found most satisfactory, and the use of gunpowder is greatly restricted. Roburite and a dynamite magnesian (local) explosive are found satisfactory substitutes.

In Cumberland county the coal-field is believed to cover an area of about 430 square miles. The coal-measures outcrop on the shores of Cumberland basin, run eastward into the land for about 18 miles, and outcrop again before they enter upon the return outcrop, running westward to the sea-shore. The northern outcrop has been systematically worked on the shore at the Joggins mines with a present annual output of about 80,000 tons, on a seam yielding about 6 feet of coal. The remainder of this side of the basin has not yet received much attention, but will, as the demand for coal increases, become more fully worked. The principal operations in this district are at the apex of the basin ; as at Springhill where the Cumberland Railway and Coal Company are engaged in mining three valuable seams of coal.