

In April, 1863, he reported that, 10 feet above this vein, he had run in a tunnel of 18 feet, from which he had sunk a direct shaft of 27 feet, piercing the vein. At that depth, he had run an oblique tunnel, of 4 feet, under the vein, with the same dip or angle; the vein where first cut by the direct shaft, was 4 feet thick, increasing as they proceeded. Having satisfied himself as to the quality and direction of the lead, Mr. Poole advised (April 24) that a main shaft should be sunk "to a depth where it was calculated the lode might be cut;" from which horizontal galleries should be run east and west. But, with the view of saving expense, he afterwards recommended, that, for the present, operations should be continued on the shaft already in work. As soon as the oblique shaft should have reached a depth of 24 feet, (at which point the vein would probably be 7 feet 6 inches thick,) he proposed to drive levels E. and W. on the course of the lode. As soon as these had been driven far enough to allow other sets of men to work, the oblique shaft should be continued to a further depth of 30 feet, where levels could be again commenced, and so on for a depth of 300 feet. This plan would entail but little "dead work." Mr. Poole described the vein on which the men were then working as easily traceable on the surface for 600 feet N.E. to S.W. He believed it to be the same as that on Jeffray and Rock Islands, and to extend to the main land (of Moresby Island), thus covering 5½ miles. Part of it he described as having been thrown out of position, 65 feet west of the shaft, by an extensive vein of quartz and other rock. West of this, it again showed itself, in the form of a large pocket or mass, and then became lost in Sockalee Harbor, re-appearing further west on a projecting point of Burnaby Island. Mr. Poole considers this cross-course of quartz, which is 5 feet in width, to be very important, and that a gallery should be driven into it in a S.W. direction, 65 feet from the present shaft.

Capt. McKay was then requested to visit the works: on his return, about June 26th, he did not confirm the accounts given by Mr. Poole, nor did some specimens of ore which he brought down show more than very faint traces of copper. Five men were left working on the shaft. Within the first week the black ore ceased; and after working through the solid rock 11 feet, they got to the level 10 feet on the N. side of the shaft, which they imagined had "destroyed the lode." They then drifted on the E. side of the shaft, and struck two other clay rocks of 200 and 500 feet. After running the tunnel 13 feet on the east side, they found no indications of copper. On the 1st August, the old (Poole's) shaft was, by the advice of Mr. Phillips, given up, and, on a vein 100 feet west of it, running N. and S., a new one was sunk.

[TO BE CONTINUED.]

GLOSSARY OR EXPLANATION

OF

SCIENTIFIC AND TECHNICAL TERMS

USED IN

GEOLOGY, MINERALOGY, MINING AND PHYSICAL GEOGRAPHY.

[CONTINUED.]

- AASLER.** The name given to freestone when squared for building purposes.
- ASSAY** (in mining). The determination of the quantity of a metal contained in a metalliferous ore.
- ATMOSPHERE.** The whole body of air floating above the solid and fluid matter on the earth.
- ATOLL.** A coral island of circular or oval shape, consisting of a circular strip of coral surrounding a central lake of salt water.
- ATOM.** The name given to the ideal ultimate particles of elementary bodies.
- ATTLE** (in mining). Rubbish, thrown out of a mine, containing little or no ore.
- ATTRACTION.** The force which tends to bring one mass of matter in contact with another.
- AURIFEROUS.** Containing gold.
- AURORA.** An appearance of light in the heavens, probably connected with the disturbance of magnetic equilibrium. When proceeding from the neighbourhood of the North Pole it is called *aurora borealis*, when from the south, an *aurora australis*.
- AVAILANCHE.** A mass of snow detached from great heights in a lofty mountain district, and falling into a valley below, often causing great destruction.

AXIS. See **ANTICLINAL** and **SYNCLINAL AXIS**.

AZURE. Nitrogen gas.

BACULITE (in Palæontology). A straight, many-chambered shell, somewhat resembling an ammonite unwound.

BACK of a lode (in mining). The part of a lode which occupies a position above the adit level. The top or upper part of the lode.

BAL (in mining). A Cornish miner's term for the mine.

BAND or **GROUND** (in mining). A band of rock of a different description to the general country.

BAR-MASTER (in Derbyshire lead-mining). The officer appointed to measure the ore and superintend the mines of a district.

BAR-MOTE (in mining). A hall or court in which trials relative to Derbyshire lead mines are held.

BAROMETRE. An instrument for measuring the weight or pressure of air by comparing it with that of a column of mercury or water.

The *Aneroid Barometer* is a modification without fluid.

BARRIER-REEF. A reef or bank of coral parallel and forming a barrier to an island or coast-line, and at some distance from the coast.

BASALT (in Geology). An igneous rock, often columnar, and supposed to be ancient lava. It is the most common of the group called *Trap Rocks*.

BASIN (in Physical Geography). An area of drainage including the whole space drained by a river and its tributaries.

BASIN (in Geology). The name applied when deposits lie in a hollow or trough, like the bed of a lake.

BASSET. The outcrop of a stratum.

BEACH. The shore of the sea.

BED of **STRATUM** (in Geology). A layer of material the whole of which exhibits some common character. A bed may or may not exhibit stratification or lamination. N.B. The plural of *stratum* is *strata*.

BELEMNITE (in Palæontology). A dart-shaped shell, probably the ancient representative of some of our cuttle-fish. The shell is conical and chambered.

BEVELMENT (in Crystallography). The replacement of edges by planes equally inclined to the adjacent faces.

BIND (in mining). The name given to argillaceous or clayey shale. *Binds* are often associated with coal.

BING (in mining). A measure of weight used in the Derbyshire mining district. The bing is 8 cwt.

BING HOLE (in mining—a Derbyshire expression). A hole in which ore is thrown.

BIT (in mining). The steel end of a borer.

BITUMEN (in Geology). Mineral pitch often found in limestones and sandstones of the carboniferous period.

BITUMINOUS SHALE (in Geology). An argillaceous shale much impregnated with bitumen.

BLACK TIN (in mining). Tin ore ready for smelting.

BLAST (in Metallurgy). The air forced into a furnace to assist combustion.

BLAST-HOLES (in mining). The holes through which water enters the *wind-bore* or bottom cylinder of a pump.

BLOWER (in coal-mining). A puff of carburetted hydrogen gas given off during, or in consequence of, mining operations.

BLUFF. A high bank presenting a precipitous front to the sea or a river.

BOARD or **BOARD GATE** (in coal mining). An adit driven in a direction transverse to that of the grain or face of the coal.

BOB (in mining). The engine team.

In the **SHARE TABLE** an alteration is now made which will facilitate reference. The transactions of each day are placed in juxtaposition, instead of in two separate tables. In the upper line are given the transactions at the Stock and Exchange Board (Board of Brokers), in the lower those at the Victoria Stock and Share Exchange.

No option is used in reporting. On the left is given the lowest offer to sell, (indicated by S); on the right, the highest offer to buy, (indicated by B). In the middle are the sales. Of the other abbreviations, *pref* indicates preferential, or paid-up, shares; *inf.* interest, or original share; *b*, buyer; and *s*, seller; the numeral following denotes in the former case the number of days within which the buyer has the option of taking delivery of stock; in the latter, the number within which the seller has the option of making it.

In the present column will be mentioned any particulars which cannot, from their exceptional character, appear in the Table, or which seem to require explanation.

FLICA STRAITS COAL COMPANY—The capital of this company is divided into 3,400 shares of \$50 each. Of these, 1,360 are held by the 17 projectors. An *interest* is therefore 80 shares. The remaining 2040 will be issued fully paid up to the public, as funds are required, instead of being thrown on the market in the ordinary way and money raised by assessments. The company is, strictly speaking, American, or their tenure would not be valid; but its registered office is here.

The **NORTH PACIFIC COAL COMPANY**'s shares are issued at \$50.