

of the generation of new minerals in strata which adjoin a "trap" rock has ever appeared than in the description of the great dyke south of Plas Newydd in Anglesea, by professor Henslow. (See Camb. Phil. Trans. vol. i.) The substance of this dyke is basalt, composed of felspar and pyroxene; its width is 134 feet, and it cuts perpendicularly through strata of shale and limestone. The strata on each side form an abrupt cliff, against the Menai shore, about 15 feet high, but the dyke, through decomposition, offers a gradual slope.

The *Plas Newydd dyke* crosses the Menai. The cliff which bounds the dyke at Plas Newydd is composed of clay shale, and argillaceous limestone. The lowest portion (thin calcareous shaly bed), on approaching the dyke, undergoes various changes. At 15 feet from the contact it forms a compact bluish grey mass, with spots of a fainter colour. In contact it is bluish green, very compact and hard. The shaly structure disappears, in a great measure, near the dyke (as at Coley Hill).

The next portion of the cliff, proceeding upwards, consists, at 50 feet from the dyke, of a soft dark-coloured plastic clay shale, thinly laminated. At 35 feet from the dyke this becomes indurated; at 10 feet it is a cherty mass, inclosing patches of highly crystalline limestone; in contact it is a hard porcellanous jasper of various colours. (Impressions of *shells* remain in it.)

The third division of the cliff consists of dark argillaceous limestone, which in contact is found of a speckled dull green and brown colour.

Above this is a thick body of clay shale, which, near the dyke, is partially turned to a flinty mass, while the rest of the shale assumes a confused appearance of crystallisation and globular structure. Perfect crystals are recognised in this mass of two distinct kinds, and exhibiting every gradation of aspect from a globular and concretionary to a perfectly crystalline character. Some of the crystals (analcime) have twenty-four trapezoidal faces. Shells of *brachiopoda* are enveloped in globules and crystals. Other crystals have twelve rhomboidal faces,