There are two great groups of schists, viz. those derived from sedimentary and those derived from igneous rocks, or, as they have been called, the “ paraschists ” and the “ orthoschists.” The first group is the more important and includes some of the commonest metamorphic rocks. In the paraschists, though fossils are ex- ceedingly rare, sedimentary structures such as bedding and the alternation of laminae of fine and coarse deposit may frequently be preserved. The foliation is often parallel to the bedding, but may cross it obliquely or at right angles; or the bedding may be folded and contorted while the foliation maintains a nearly uniform orientation. When the foliation is undulose or sinuous the rocks arc said to be crumpled, and have wavy splitting surfaces instead of nearly plane ones. The development of foliation in shaly rocks is undoubtedly closely akin to the production of cleavage in slates.

The sedimentary schists or paraschists have three great sub- divisions, the mica-schists and chlorite-schists (which correspond in a general way to shales or clay rocks) the calc-schists (impure limestones) and the quartz-schists (metamorphosed sandstones). In the mica-schists of this group biotite or muscovite may be the principal mineral and often both are present in varying proportions; the mica has developed from the argillaceous matter of the original rock; in addition there is always quartz and sometimes telspar (albite or oligoclase). A large number of minerals may occur as accessories, *e.g.* garnet, tourmaline, staurolite, andalusite, actinolite, chloritoid or ottrelite, epidote, haematite, and if any of these is abundant its presence may be indicated by the name given the rock, *e.g.* staurolite-mica-schist. The phyllites (*q.v.*) form a middle term between this group and the slates; they consist usually of quartz, white mica and chlorite, and have much of the foliation and schistosity of the mica-schists. Those rocks which contain andalusite and staurolite are sometimes found in such associations as show that they are due to contact action by intrusive igneous masses. The chlorite-schists are often of igneous derivation, such as ash-beds or fine lavas which have been metamorphosed. Many of them contain large octahedra of magnetite. Others are probably sedimentary rocks, especially those which contain much muscovite. Calc-schists are usually argillaceous limestones in which a large development of biotite or phlogopite has occasioned foliation. Often they contain quartz and felspar, sometimes pyroxene, amphibole, garnet or epidote. Pure limestones do not frequently take on schistose facies. The quartz-schists consist of quartz and white mica, and are intimatcly related to quartzites. Many of them have been originally micaceous or felspathic sandstones. We may mention also graphitic- schists containing dark scaly graphite (often altered forms of car- bonaceous shales), and haematite-schists which may represent beds of ironstone.

The orthoschists are white mica-schists produced by the shearing of acid rocks, such as felsite and porphyry. Some of the “ porphy- roids ” which have grains of quartz and felspar in a finely schistose micaceous matrix arc intermediate between porphyries and mica- schists of this group. Still more numerous arc orthoschists of horn- blendic character (hornblende-schists) consisting of green hornblende with often felspar, quartz and sphene (also rutile, garnet, epidote or zoisite, biotite and iron oxides). These arc modified forms of basic rocks such as basalt, dolerite and diabase. Every transition can be found between perfectly normal ophitic dolerites and typical hornblende-schists, and occasionally the same dike or sill will provide specimens of all the connecting stages. A few hornblende- schists are metamorphosed gabbros; others have developed from dikes or sills of lamprophyre. Under extreme crushing these basic rocks may be converted into dark biotite-schists, or greenish chlorite- schists. Tremolite-schist and anthophyllite-schist arc in nearly all cases the representatives of the ultra-basic igneous rocks such as peridotite in regions of high metamorphism. Talc-schists are of the same category. They arc soft and lustrous, with a peculiarly smooth fed, and though often confounded with mica-schists may be distinguished by their richness in magnesia; many of them contain tremolitc or actinolite; others have residual grains of olivine or augite; and here also every gradation can be found between the unmodified igneous types and the perfectly metamorphic schists. Occasionally serpentines become sheared without yielding talcose minerals; they arc then known as serpentine-schist and antigoritc- schist, the latter being tough leek-green rocks, more or less transparent.

SCHLAGINTWEIT, the name of five German scientific ex­plorers or students of foreign countries. They were brothers, and were named Hermann (1826-1882, who became known as Hermann von Schlagintweit Sakünlünski), Adolf (1829-1857), Eduard (1831-1866), Robert (1833-1885), and Emil (1835- r904). Hermann was born at Munich on the 13th of May 1826. His first scientific labours were studies in the Alps, carried on between 1846 and 1848 in association with his brother Adolf (born at Munich on the 9th of January 1829). The publication of the *Untersuchungen über die physikalische Geographie der Alpen* in 1850 (Leipzig) founded the scientific reputation of the two brothers, and their reputation was increased by subsequent

investigations in the same field, in which Robert (bom at Munich on the 27th of October 1837) also took part. Soon after the publication of the *Neue Untersuchungen über die phys. Geog. u. Geol. der Alpen* (Leipzig, 1854), the three brothers received, on the recommendation of Alexander von Humboldt, a commission from the East India Company to travel for scientific purposes in their territory, and more particularly to make observations on terrestrial magnetism. During 1854-1857 they travelled, sometimes in company, sometimes separately, in the Deccan and in the region of the Himalayas, prosecuting their investigations beyond the frontiers of the company’s territory into the region of the Karakorum and Kuen-lun mountains. Hermann and Robert were the first Europeans who crossed the Kuen-lun, and in honour of that achievement the former had the title or surname of Sakünlünski bestowed upon him (in 1864). Robert returned to Europe early in 1857; Hermann, after a visit to Nepal, joined him on his homeward journey; but Adolf, who remained to prosecute his explorations **in** Central Asia, was put to death by the amir of Kashgar on the 26th of August. Hermann and Robert published in four volumes the *Results of a Scientific Mission to India and High Asia* (Leipzig, 1860-1866). They had, moreover, made extensive ethnographical and natural history collections. Hermann spent the last years of his life chiefly in literary and scientific activity, partly at Munich, partly at the castle of Jägernburg near Forchheim. He died at Munich on the 19th of January 1882. Robert was appointed professor of geography at Giessen in 1863. He paid several visits to America, which furnished him with material for such works as *Die Pacific· Eisenbahn* (1870), *Die Mormonen* (1874), *Die Prärien* (1876), &c., all published at Cologne. He died at Giessen on the 6th of June 1885. Eduard, born on the 23rd of March 1831, killed in battle at Kissingen in 1866, made himself known by an account of the Spanish expedition to Morocco in 1859-1860. Emil, born on the 7th of July 1835, wrote several learned works relating to India and Tibet. He died on the 29th of October 1904.

SCHLAN (Czech, *Slané),* a town of Bohemia, 37 m. N.W. of Prague by rail. Pop. (1900) 9491, mostly Czech. The most notable churches are St Gotthard (14th century, remodelled in 1782) St Mary, attached to the Piarist college (1655-1658), the chapel of St Lawrence (13th century) and the church of the Holy Trinity belonging to the Franciscan friary (1655). There are extensive coal-fields and important iron, metal and machine industries, together with the manufacture of chemicals and corn-milling.

Schlan—probably the name of a castle—occurs in documents of the 10th century. The town was probably founded in the 13th century by Ottakar II. In the Hussite wars it took the utraquist side, was occupied in 1420 by King Sigismund, but retaken the next year by the troops of Prague. These were expelled, in 1425, after a desperate resistance by the Taborites and Orphans. The town now remained faithful to the Taborite cause till its collapse in 1434. The place was re-fortified between 1460 and 1472. After the battle of the White Hill (1620), Schlan was granted to Jaroslaus Borita of Martinic, lord of Smečno, whose descendants still own the lordship.

SCHLANGENBAD, a watering-place of Germany, in the Prussian province of Hesse-Nassau, pleasantly situated in a deep and well-wooded valley of the Taunus range, 6 m. N.W. of Wiesbaden, 4½ m. S. of Langenschwalbach, and 5 m. E. of Eltville on the Rhine, with which it is connected by a steam tramway. Its eight thermal springs arc mostly used for bathing, and are efficacious in nervous complaints and feminine disorders. There is a handsome kursaal connected with the principal bathing establishment. Permanent population (1905) 400, while the number of visitors numbers about 2500 annually.

Sec Baumann, *Schlangenbad, mit besonderer Berücksichtigung seiner Kur- und Bade-Anstalten* (new cd., Wiesbaden, 1894); and Bertrand, *Schlangenbad und seine Warmquellen* (Heidelberg, 1878).

**SCHLEGEL, AUGUST WILHELM** VON (1767-1845), German poet, translator and critic, was born on the 8th of September, 1767, at Hanover, where his father, Johann Adolf Schlegel (1721-1793), was a Lutheran pastor. He was educated at the Hanover gymnasium and at the university of Göttingen. Having spent some years as a tutor in the house of a banker at