Contemporary Birthdays.

July 16, 1872. Capt. Roald Amundsen.
July 18, 1853. Prof. H. A. Lorentz, For. Mem. R.S.
July 21, 1873. Sir Walter Morley Fletcher, K.B.E., F.R.S.
July 21, 1873. Prof. Howard T. Barnes, F.R.S.
July 22, 1865. Sir Richard Redmayne, K.C.B.
July 24, 1856. M. Charles Émile Picard, For. Mem. R.S.
July 24, 1853. M. Henri A. Deslandres, For. Mem. R.S.
July 25, 1854. Mr. Alfred Barnard Basset, F.R.S.

Prof. LORENTZ, an alumnus of the University of Leyden, was born at Arnheim. He was elected to the chair of theoretical physics in that University in 1875, and among his former pupils was Prof. Zeeman. The Nobel prize in physics was allotted to both of them in 1902. Rumford medallist of the Royal Society in 1908, Prof. Lorentz was awarded the Copley medal in 1918. While his researches as a mathematical physicist of the first order have covered many fields of investigation, his principal work has dealt with the theory of electrons and the constitution of matter considered as an electrodynamic problem.

Sir WALTER FLETCHER, who was born at Liverpool, is a graduate of Trinity College, Cambridge. He is Secretary of the Medical Research Council.

Prof. HOWARD T. BARNES was born at Woburn, Mass., and educated at Montreal Academy and McGill University. Originally a demonstrator in the chemistry department of McGill, he became in 1908 Macdonald professor of physics there, and, soon after, director of the Physics Building. For long he was ice engineer of the Hydro-Electrical Power Commission of Ontario. Prof. Barnes invented the micro-thermometer ice preventive method. He has written many memoirs concerning ice formation, specific heats, and radioactivity.

Sir RICHARD REDMAYNE, consulting mining engineer, was born at Gateshead-upon-Tyne. Following private tuition he attended Durham College of Science, and afterwards he became a mining apprentice at Hetton Collieries. Sir Richard was H.M. Chief Inspector of Mines, 1908–20. A member of many Royal Commissions on mining operations, he has been responsible in the main for the respective official reports. Sir Richard is a chevalier of the Legion of Honour.

M. PICARD, eminent as a mathematician, was born in Paris and educated there at the École Normale Supérieure. From 1879 until 1881 he held a professorial chair in the University of Toulouse. One of the permanent secretaries of the Paris Academy of Sciences, he is a commander of the Legion of Honour. M. Picard is an honorary member of the Royal Society of Edinburgh.

M. DESLANDRES, the distinguished director of the Astronomical and Physical Observatory at Meudon, was born in Paris and educated at the École Polytechnique. An active member of the International Astronomical Union, M. Deslandres is an officer of the Legion of Honour. He has many written memoirs on general and physical astronomy.

Mr. BASSET, a Londoner, graduated at Trinity College, Cambridge, as 13th wrangler. He is the author of a treatise on physical optics, and other works.

Societies and Academies.

LONDON.

Mineralogical Society, June 15.—S. I. **Tomkeieff**: On some chloritic minerals associated with the basaltic Carboniferous rocks of Derbyshire. Certain leptochlorites occurring as vesicular infillings in the Carboniferous lavas ('toadstones') of the North Derbyshire area are described. The chemical analysis of a finely spherulitic chlorite from Calton Hill places it definitely in the delessite-diabantite series. Some other chlorites from Miller's Dale are less crystalline and show a peculiar development of bacteria-like aggregates, similar to those observed in the chlorophæite of Dalmahoy Hill, near Edinburgh. All these chlorites can be compared with the chloritic palagonite occurring in the mesostasis of the non-vesicular basalt of the same lava flow, and it is suggested that both varieties of chlorite are primary, and were formed during the final stages of the solidification of the magma (autopneumatolitic).—F. L. **Stillwell**: On the nature of berthierite. A chemical analysis of berthierite from Nullamanna, near Inverell, New South Wales, gave the formula $3FeS.4Sb_2S_3$. Microscopical examination of polished and etched sections of the material shows an intergrowth of about 18 per cent. of stibnite. Deducting this from the results of the chemical analysis, the formula of berthierite becomes $FeS.Sb_2S_3$.—L. J. **Spencer**: A sperrylite crystal from the Transvaal. Crystals of sperrylite (the rare platinum arsenide, $PtAs_2$) up to half-an inch across have recently been found in the Potgietersrust platinum fields, Transvaal. The crystal examined measures 5·0-5·5 mm. across and weighs 1·294 gm. It is a brilliant cubo-octahedron developed on all sides and with the corners and edges much rounded. The rounded areas give a profusion of scattered reflected images, few of which lie in the principal zones on the crystal. The only forms identified with certainty are (100), (111), (110), (210), (211).—H. E. **Buckley**: The anomalous optical properties of some new series of isomorphous double tartrates. In addition to the mixed crystals $\{m$ NaK, n Na$(NH_4)\}$ $C_4H_4O_6.4H_2O$, previously examined, optical anomalies of the same kind have now been determined for the series $\{m$ KNa, n K$(NH_4)\}$ $C_4H_4O_6.4H_2O$ and $\{m$ (NH_4)Na, n (NH_4)K$\}$ $C_4H_4O_6.4H_2O$. All these crystals are orthorhombic and isomorphous, but when freshly prepared they show crossed dispersion characteristic of monoclinic crystals (borax type). On standing, the crystals show a slow change in the size of the optic axial angles and in the position of the optic axial planes for different colours; and finally, after a lapse of some time, they settle down with all the optic axial planes lying in the plane (100) or (010) or in both, giving in the latter case crossed axial-plane dispersion of the orthorhombic (brookite) type. This change is hastened by rise in temperature and retarded by pressure. Sections from the outer and inner portions of the crystals showed a difference, evidently due to the time taken for growth; but in the final state they are identical, suggesting that the crystals are homogeneous. Other isomorphous series of mixed crystals containing only two of the three bases, namely $\{m$ Na_2, n Na$(NH_4)\}$, $\{m$ $(NH_4)_2$, n (NH_4)Na$\}$, $\{m$ Na_2, n NaK$\}$, and $\{m$ K_2, n KNa$\}$, showed, in the range of the visible spectrum, the optic axial planes all in one plane, but with wide differences in optic axial angle.—G. T. **Prior**: On the South African meteorites, Vaalbult, Witklip, and Queen's Mercy. The Vaalbult meteoric iron is a very deeply and broadly pitted mass weighing about