Contemporary Birthdays.

March 27, 1844.	Maj.-Gen. Adolphus W. Greely.
March 27, 1857.	Prof. Karl Pearson, F.R.S.
March 27, 1855.	Sir J. Alfred Ewing, K.C.B., F.R.S.
March 29, 1840.	Sir John Scott Keltie.
March 29, 1853.	Dr. Elihu Thomson.
March 29, 1860.	Prof. William B. Benham, F.R.S.
March 31, 1890.	Prof. William L. Bragg, F.R.S.
March 31, 1854.	Sir Dugald Clerk, K.B.E., F.R.S.
March 31, 1870.	Sir William J. Pope, K.B.E., F.R.S.
March 31, 1859.	Sir Frederick W. Andrewes, F.R.S.

Maj.-Gen. GREELY, polar explorer and telegraphist, was born at Newburyport, Mass. He served in the Civil War, 1861–65, and, we believe, was the first volunteer private soldier to reach the grade of brigadier-general, U.S.A. In 1881 he was placed in command of the United States official expedition to establish one of a chain of thirteen circumpolar stations; his party of twenty-five reached farther north than any previous record, discovered new land north of Greenland, and crossed Grinnell Land to the Polar Sea. The final story of the Greely Expedition was one of disaster: there were only seven survivors. General Greely was the United States delegate at the International Telegraph Conference, London, 1903. Under his supervision 3900 miles of telegraph lines, submarine cables, and wireless were installed in Alaska, 1900–4.

Prof. KARL PEARSON was educated at University College School, London, and King's College, Cambridge. He was called to the bar, Inner Temple, 1882. Galton professor of eugenics in the University of London, and editor of *Biometrika*, he has written many memoirs on the mathematical theory of evolution and on heredity.

Sir ALFRED EWING, president of the Royal Society of Edinburgh, was born at Dundee. Formerly professor of mechanism and applied mechanics in the University of Cambridge, he was afterwards (1903–16) Director of Naval Education. Since then he has been Principal and Vice-Chancellor of the University of Edinburgh. He was awarded a Royal medal by the Royal Society, in 1895, for researches on magnetic induction in iron and other metals.

Sir JOHN SCOTT KELTIE was educated at Perth, and the Universities of St. Andrews and Edinburgh. For a number of years he was assistant editor of NATURE. Sir John was secretary of the Royal Geographical Society, 1892–1915.

Sir DUGALD CLERK was born in Glasgow. He is universally known as an investigator in the problems of internal combustion engines. The Albert medal of the Royal Society of Arts was allotted him in 1922, "in recognition of contributions . . . to the development of the internal combustion engine, which in its latter forms has rendered aerial navigation possible, and is also extensively employed in the motor-car and in the submarine." Sir Dugald was a Royal medallist of the Royal Society in 1924.

Sir WILLIAM POPE, professor of chemistry in the University of Cambridge, is a Londoner. He was educated at Finsbury Technical College and the Central Technical College, City and Guilds of London. After a professorial career at the University of Manchester, he became head of the Chemistry Department, Goldsmiths' Institute, New Cross. Sir William was Longstaff medallist of the Chemical Society, 1903, and Davy medallist, Royal Society, 1914.

Societies and Academies.

LONDON.

Royal Society, March 18.—S. **Chapman**, J. **Topping**, and J. **Morrall**: On the electrostatic potential energy, and the rhombohedral angle, of carbonate and nitrate crystals of the calcite type. Calculations have been made of the electrostatic potential energy of ionic lattices of the calcite type and for the sodium nitrate crystal, in which the lattice is of the same geometrical type, though the ionic charges are different. It seems probable that, owing to the fourfold positive charge in the C ions, the O ions of the CO_3 group will be distorted from their natural symmetrical form, and consequently the electrostatic centre of the O ion will be nearer to the C nucleus than the O nucleus is. The calculations indicate that the electrostatic centre of the O ion is 0·9 Å.U. distant from the centre of the C ion, compared with the value 1·25 Å.U. given by X-ray measurements for the distance between the O and C nuclei. A similar result is obtained for $NaNO_3$.—G. I. **Finch** and L. G. **Cowen**: Gaseous combustion in electric discharges. Pt. I. Steady direct current electric discharges are passed through electrolytic gas at 20-100 mm. pressures, and the rate of steam formation measured for varying conditions. It is found that the rate of combustion is determined only by the current, and up to a certain limiting current, combustion is confined to the cathode zone, depends upon the cathode material, and is directly proportional to the current. On exceeding this limiting current, combustion commences *abruptly* in the inter-electrode zone and is superposed upon cathodic combustion. This inter-electrodic combustion is also proportional to current, but, unlike the cathodic, is independent of the electrode material, and dependent upon gas pressure and separation of the electrodes. Little or no combustion takes place in the anode zone. Combustion seems to be primarily determined by ionisation of the gaseous medium for the current. The abrupt superposition of inter-electrodic combustion suggests a quantum effect, combustion in the inter-electrode zone depending upon a certain limiting potential fall being attained.—C. N. **Hinshelwood** and W. K. **Hutchison**: A homogeneous unimolecular reaction: the thermal decomposition of acetone in the gaseous state. The temperature range used was 506° to 632° C. The heat of activation is 68,500 calories, and the results can be summarised by the equation $l_n k = 34{\cdot}95 - 68{,}500/RT$. Calculation shows that the number of molecules reacting per second is about 10^5 times greater than the maximum number that could be activated by collision. The absolute rate at 835° Abs. is the same as that of the nitrogen pentoxide decomposition at 328° Abs.—H. **Lamb**: On wave resistance. The case considered is that of a solid of dimensions small compared with the depth below the free surface, travelling horizontally under water. Various particular cases of this have been worked out. There appears to be room for a more general investigation in which no assumption is made as to the form of the solid. The device employed for calculation of the resistance is to introduce small frictional forces, and to equate the work done against resistance to the dissipation of energy.—C. E. **Eddy** and A. H. **Turner**: The *L* emission series of mercury.—G. R. **Goldsbrough**: The properties of torsional vibrations. In order to bring out clearly the nature of the torsional vibrations in reciprocating engine shafts, a simplified model is chosen which emphasises the main characteristics. Even when friction is great, there are two critical