Birthdays and Research Centres.

July 26, 1872.—Prof. J. BARCROFT, C.B.E., F.R.S., professor of physiology in the University of Cambridge.

Until recently it was scarcely realised that an appreciable proportion of the blood in the body is not being used, except as occasion requires. Either it is side-tracked in such places as the spleen, the skin when congested, and possibly the large uterine veins of some pregnant animals, or it is 'held up' as in the liver (Maunter and Pick, Rein, Dale). Where are these depots? How long does blood remain in them? By what mechanisms is it held? For what purpose is it released?

July 28, 1864.—Prof. C. H. LEES, F.R.S., emeritus professor of physics in the University of London (East London College).

My objects of chief investigation now in progress are: The laws of plastic flow in overstressed materials; improvements in the methods of determining heat conductivities, with special reference to geothermal problems; the solubilities of gases in liquids at very high pressures, and the equilibrium of such solutions in gravitational fields; tests of theories of magnetisation with special reference to the effect of temperature on dia- and paramagnetic materials; and the solution of physical problems which arise in the study of flame propagation.

July 30, 1889.—Prof. J. KENDALL, F.R.S., professor of chemistry in the University of Edinburgh.

I am at present much concerned to find time for research in the short intervals between performance of administrative duties and attendance on committee meetings. An examination of the atomic weight of calcium contained in very old potassium-rich minerals from Portsoy and Rhiconich is, however, now being initiated. If a significant fraction of the small percentage of calcium present has resulted from the slow radioactive disintegration of the potassium, results of considerable interest in several directions may be anticipated.

Societies and Academies.

DUBLIN.

Royal Dublin Society, June 16.—**M. J. Gorman and H. A. Lafferty**: On a method of distinguishing the seedlings of Swedish turnip (*Brassica napus* L. var. *napobrassica* (L.) Reichb.) from those of broad-leaved rape (*Brassica napus* L. var. *biennis* (Schubl et Mart) Reichb.). Characteristic differences in the shape of the first foliage ('rough') leaf and the relative length of first internode are recognisable in the seedlings of these two plants in fourteen to twenty days from the time of sowing the seeds.—**T. Dillon and Annie McGuinness**: On alginic acid: its mode of occurrence and its constitution. Alginic acid cannot occur in the free state in seaweeds, since no carbon dioxide is evolved during the solution of the fronds of *Laminaria* in sodium carbonate. Dialysis of alginic acid prepared from fresh fronds gives rise to an increase in the ash-content. This suggests that in the plant the acid is combined with non-polar colloidal compounds of calcium and iron. Dry alginic acid has the formula $(C_6H_8O_6)$; but this is a lactone. The polymerising unit is not an anhydride as in the case of starch and cellulose but the complete acid $C_6H_{10}O_7$. The units are therefore not pyranose or furanose rays; but open chains.—**M. Grimes and A. J. Hennerty**: A study of bacteria belonging to the sub-genus *Aerobacter*. The paper describes two species of bacteria previously unknown. These have been named *Aerobacter hibernicum* and *Aerobacter liquefaciens* respectively.

Royal Irish Academy, June 22.—**J. Reilly, B. Daly, and P. J. Drumm**: Studies in the pyrazole series—Diazotisation of aminophenylpyrazoles. The condensation of *p*-nitro phenylhydrazine and benzoyl acetone gives *p*-nitro phenyl 3 methyl 5 phenyl pyrazole, and the corresponding amino compound on reduction. This compound on diazotisation gives comparatively stable diazonium salts, and these as well as related azo compounds have been prepared and compared.—**J. Reilly, M. Hayes, P. J. Drumm**: Lichenin. Purified lichenin has been nitrated and a compound of the type $C_{12}H_{15}O_5(NO_3)_5$ prepared. It is closely related to the corresponding cellulose nitrate.—**P. J. Drumm**: The constitution of Fischer and Bülow's pyrazole. The pyrazole obtained by Fischer and Bulow by the condensation of benzoyl acetone with phenyl hydrazine has been re-examined and found to be 1 : 5 diphenyl 3 methyl pyrazole. Evidence of the formation of the isometric 1 : 3 diphenyl 5 methyl pyrazole has not been obtained.

EDINBURGH.

Royal Society, July 6.—Clerk Maxwell Centenary: **Prof. E. T. Whittaker** delivered an address on James Clerk Maxwell and mechanical descriptions of the universe.—**J. Phillip, J. D. Scott, and J. Y. Moggridge**: Photochemical measurements of light intensity in two common vegetation types in tropical Africa, by means of the improved Eder-Hecht photometer. The paper records the high photochemical values registered under the light canopy of that very widely distributed woodland type, the *Berlinia Brachystegia*—other spp. community or 'Miombo'—and shows how the Bunsen-Roscoe values are correlated with duration of sunshine and with the readings of the Livingston radio-atmometer, and directs the attention of biologists to the usefulness of the Eder-Hecht photometer in the study of habitats in Nature.

PARIS.

Academy of Sciences, June 1.—The president announced the death of Eugène Cosserat, non-resident member.—**A. Lacroix**: The ægyrine nepheline syenite minerals of the north of the island of Kassa. The various pneumatolytic phases of the nepheline syenites of the Los Archipelago.—**Jules Drach**: Partial mean values and their application to the problems of mathematical physics.—**P. Villard**: The titration of phosphoric acid. Discussion of the results of Sanfourche, Cavalier, and Joly.—**M. d'Ocagne**; Remarks on interpolation with reference to a recent note by Wolkowitsch.—**Jean Baptiste Senderens**: The catalytic dehydrogenation, in the gas phase, of the fatty alcohols in the presence of pumice carrying sulphuric and phosphoric acids. Phosphoric acid has a less active dehydrating action upon alcohols in the gas phase than in a liquid system. Sulphuric acid, on the contrary, acts more readily in the gas phase.—**Georges Giraud**: The determination of tensors by partial differential equations connected with conditions at the boundary.—**G. Pólya and G. Szegö**: Some qualitative properties of the propagation of heat.—**S. Stoilow**: The inversion of the continued transformations of two variables.—**Gr. C. Moisil**: A system of functional equations.—**N. Aronszajn**: A remark on the singularities of Dirichlet's series.—**R. Gosse**: The integration of an equation of the first class.—**Florent Bureau**: Some properties of uniform functions in the neighbourhood of an isolated essential singular point.