Birthdays and Research Centres.

Aug. 13, 1872.—Prof. RICHARD WILLSTÄTTER, For.Mem.R.S., professor of chemistry in the University of Munich.

In recent years I have been occupied chiefly with such different things as silicic acid, that is true monosilicic acid, and with the enzymes of leucocytes. With regard to these, I began with studying the protein-splitting enzymes, trypsin and kathepsin, their occurrence and behaviour in the colourless blood-cells of herbivores and carnivores. At the present time I am engaged in analysing the glycogen-splitting enzyme of leucocytes. Concerning the peculiarities of amylase, it is surprising how much information can be obtained from observations with blood-cells. In the muscle, where the metabolism of carbohydrates is being studied so thoroughly, things must be so much more intricate.

In connexion with my problem I should like to raise a question. Is it to be taken for granted that glands are producing enzymes, or are they disintegrating the blood-cells and selecting and storing the enzymes ?

Aug. 14, 1861.—Sir RICHARD THRELFALL, G.B.E., F.R.S., chairman of the Fuel Research Board.

I regret that for the past year my health has not permitted me to live continuously in England, and consequently the amount of work I have been able to do has been but small. My main occupation has been the investigation of the decolorising power of charcoal which has been activated by partial combustion in sulphur vapour, and I am looking forward to continuing this work as soon as my health permits me to do so.

I have also had on hand for several years the study of a gravity balance (Threlfall and Pollock, *Phil. Trans.*, 1899), with the assistance of Mr. Dawson. This instrument gave very promising results in Australia so far back as 1898, but there are indications that, after more than thirty years, some slipping is beginning to take place at the joints where quartz is soldered to metal. There is, however, another possibility which I am now investigating, but in the meantime the behaviour of the instrument has become unsatisfactory.

I am also engaged in attempting to bring out a new edition of a small book on " Laboratory Arts " which I published during the 'nineties, and which now, of course, requires very copious revision. The proposed changes are mostly in MS., but I am unfortunately short of the kind of assistance required to enable me to get it through the press.

Aug. 15, 1871.—Prof. G. ELLIOT SMITH, F.R.S., professor of anatomy in University College, London.

The results achieved by recent research in comparative neurology now for the first time open the way for a comprehensive synthesis of our knowledge of the brain, and suggest the possibility of new and fruitful methods of studying the factors which were responsible for the attainment of the growing powers of skill and understanding in vertebrates and the making of the mind in man. If this great scheme of research is to be realised, the most urgent need is the correlation of the information acquired by comparative anatomy and physiology, by clinical investigation and experimental psychology, as well as by palæontology and anthropology, with properly critical attention to considerations of phylogeny and chronology, so as to define the means whereby the drastic revolutions which occurred in the central nervous system—and, in fact, the whole organism—when each of the different classes of vertebrates came into being, made possible new modes of locomotion and new possibilities of behaviour, and how the refinement of sensory discrimination eventually made the acquisition of higher degrees of skill attainable.

My aim at the present time is the study of the means whereby these general biological principles found expression in the process of conferring upon man's ancestors the higher powers of understanding and skill which transformed them into men.

Societies and Academies.

PARIS.

Academy of Sciences, June 15.—**Adolphe Lindenbaum**: Regulated ensembles.—**Francesco Severi**: Biharmonic functions and the theory of analytical functions of two complex variables.—**Gaston Julia**: Conformal representation of multiple associated areas.—**Gr. C. Moisil**: The use of generalised vector potentials in the integration of a class of partial differential equations.—**R. Gosse**: Equations $s=f(x, y, z, p, q)$ which admit of an invariant of the second order.—**G. Cerf**: The characters of systems in involution of partial differential equations.—**S. Mazurkiewicz**: The problem of Lusin.—**F. E. Myard**: Closed chains with five rotoid couples deformable at the first degree of freedom.—**E. Chausse** and **J. Baubiac**: The secondary vortices produced below an obstacle immersed in a liquid.—**Fernand Baldet**: The Raffety bands and the spectra of comets. The radiations from the nuclei of comets cannot be identified with the Raffety bands given by the flame of an oxyacetylene blowpipe.—**Ch. Racine**: Contribution to the study of the static problem in the theory of relativity.—**L. Goldstein**: The application of quantic mechanics to chemical kinetics. **Maurice Robert**: Application of the oxymetal rectifier to the measurements of the maximum potential difference.—**Stanislas Teszner**: Recording mobile waves with a modified Dufour cathode ray oscillograph.—**Louis Leprince-Ringuet**: Relation between the path of a rapid proton in air and the ionisation which it produces. Application to the study of the artificial disintegration of the elements.—**F. Margand**: The damping of the oscillations of polyphase synchronised machines in the theory of two reactions.—**Georges Fournier**: The translation of light intensities into sound intensities. By means of the apparatus described, by listening at a telephone a blind person can distinguish the position of a window or source of light, the surface occupied on a table by a sheet of white paper, and other phenomena of light.—**P. Waguet, A. Stampa**, and **J. Dourgnon**: The rôle of irregularities of the profile of reflectors for motor car projectors and their photographic control.—**Daniel Chalonge**: The variations of the energy distribution in the continuous spectrum of molecular hydrogen.—**Henri Grenat**: The identification of the Raffety spectrum.—**Marcel Laporte**: The chemical reactions of ionised gases. The synthesis of nitric acid.—**Cazaud**: The influence of the magnitude of the micrographic grain on the resistance to fatigue of mild steel. The effects of cold-hardening, of annealing, and of overheating.—**Marcel Godchot** and **Mlle. G. Cauquil**: The viscosities, surface tensions, and parachors of some cyclo-hydrocarbons.—**A. Portevin** and **A. Sanfourche**: The attack of the common metals by solutions of phosphoric acid. Twelve metals were submitted to the attack of solutions of phosphoric acid of different origin and of varying concentrations. The results are given in a diagram.—**L. Bert**: The action of 1, 3-dichloropropene on the sodium phenols.—**P. Carré** and **P. Mauclère**: The transformation of the polyatomic alcohols into