

### Birthdays and Research Centres.

Aug. 7, 1864.—Mr. OSWALD H. LATTER, formerly senior science master at Charterhouse.

An investigation of the action of certain chemical substances in stimulating dormant storage organs of plants to activity—for example, ethylene chlorhydrin in the case of *Gладиолус* corms, potassium sulphocyanide in the case of potato tubers—might lead to valuable results.

Aug. 7, 1886.—Prof. P. G. H. BOSWELL, F.R.S., professor of geology in the University of London, Imperial College of Science and Technology, S.W.

To select for special mention from among the various branches of pure geology, oil technology, and mining geology is not easy in a department where students bring problems from many parts of the world and where more than thirty subjects of research are in progress. Detailed observations on the constitution, arrangement, and fossil contents of strata, for example, must proceed; as also the exploration of unknown or little known regions. By these means alone can we fill in the many gaps in the geological record and discover new links in the chain of life.

It is important, however, that the inductive methods of experimental research should be employed side by side with analytical investigations. Hence our aim at the Imperial College is to continue research on such problems as the rôle of water and other mineralisers in the genesis of igneous rocks and metallic ores; the imperfectly understood processes in the formation of clays; and the natural history of sedimentary rocks, both as a problem in pure geology and in its bearing on the origin of petroleum.

Aug. 8, 1857.—Prof. HENRY FAIRFIELD OSBORN, For.Mem.R.S., research professor of zoology in Columbia University and honorary curator of vertebrate palæontology in the American Museum of Natural History.

I began field study of palæontology in the of August, 1876. I initiated the field explorations from the American Museum in 1891 and became fascinated with the origin and evolution of the proboscideans in 1899, leading to the Fayum Expedition of 1907, in turn to the increasingly intensive study of the evolution of the mastodont, stegodont, and elephantine divisions, especially since the year 1920, when the text of the Titanotheres Monograph was completed and sent to the United States Geological Survey for printing. Both stegodonts and elephants have been close travelling companions of man for at least 1,250,000 years, and recently a most interesting discovery has been made that intensive measurement of the ridge plates of the grinding teeth of the proboscideans promises to afford a new and very precise means of dating not only the stegodonts and elephants but also their companion, hunter, and destroyer, prehistoric man.

Aug. 9, 1880.—Prof. M. GREENWOOD, F.R.S., professor of epidemiology and vital statistics in the University of London.

I am at present engaged on the statistical analysis of data of epidemics occurring in groups of mice, with particular reference to the mechanism and quantitative measure of immunisation against bacterial and virus diseases.

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Aug. 10, 1865.—Col. Sir CHARLES F. CLOSE, K.B.E., C.B., C.M.G., F.R.S., chairman of the Palestine Exploration Fund; president of the International Population Union; president of the Hants Field Club; formerly president of the Royal Geographical Society.

Three groups of subjects are now of special interest to me. Now that Great Britain has the mandate for Palestine, all possible help should be given to the Palestine Exploration Fund and the British School of Archaeology in Jerusalem; and it is most desirable that the headquarters and museum of the Fund should become a real centre and focus of information with regard to the history and archaeology of Palestine. Secondly, it is to be hoped that the International Map of the World will make more rapid progress; though much has been done, some countries are lagging behind. In a similar geographical field, a comprehensive English text-book on map projections is badly needed. The admirable 'Germain' is much out of date. Thirdly, all interested in the subject should assist the International Union for the Study of Population Problems and the British National Committee of the Union. The Union is not propagandist and its work is purely scientific.

Aug. 11, 1895.—Dr. C. D. ELLIS, F.R.S., fellow of Trinity College and lecturer in physics in the University of Cambridge.

I am engaged in investigating the  $\beta$ - and  $\gamma$ -ray type of radioactive disintegration. Recent work has shown that there is a close connexion between the energy differences of the  $\alpha$ -particle levels in the nucleus and the frequencies of the emitted  $\gamma$ -rays, and it seems a point of importance to ascertain accurately the intensities of the different  $\gamma$ -rays in order to establish correlation in this connexion also with the  $\alpha$ -particles.

A further point of great interest which can be conveniently studied by the same type of experiment is the direct coupling between the nucleus and the electronic system which is shown by the so-called 'internal conversion' of the  $\gamma$ -rays.

### Societies and Academies.

#### DUBLIN.

Royal Dublin Society, June 24.—A. W. Conway: The influence of the work of Sir William Rowan Hamilton on modern mathematical thought. Hamilton's mathematical work may be divided chronologically into four groups: optics, dynamics, general, and quaternions. His work on optics is dominated by his idea of the 'characteristic function' and his grasp of the fact that this had application either to a wave or to a corpuscular theory of light, representing principles of least (or greatest) time and least (or greatest) action, respectively, on the two theories. His application of the principle of varying action put the whole of dynamics on a new footing, and his methods are to-day freely used.—Phyllis Clinch: Cytological studies of potato plants affected with certain virus diseases. A histological and cytological study was made of the mosaic diseases of the potato designated simple and interveinal mosaic, crinkle, streak, and aucuba mosaic. The leaf modifications which underlie the mottling arise in part from underdevelopment of the mesophyll, from a reduction in the number and size of the chloroplasts, and from a paler colour of the chlorophyll. In aucuba mosaic the mottling is almost entirely due to the disintegration of the chloroplasts. Intra-cellular structures of the 'X-body' type occur in all the diseases mentioned,