

Contemporary Birthdays.

- June 19, 1858. Sir Henry J. Oram, K.C.B., F.R.S.
 June 20, 1861. Sir Frederick G. Hopkins, F.R.S.
 June 21, 1862. Sir Humphry Rolleston, Bart., K.C.B.
 June 21, 1860. Dr. William D. Halliburton, F.R.S.
 June 22, 1864. Sir Daniel Hall, K.C.B., F.R.S.
 June 23, 1843. Prof. Paul Heinrich Ritter von Groth, For.Mem.R.S.
 June 23, 1860. Sir W. Baldwin Spencer, K.C.M.G., F.R.S.
 June 23, 1859. Lt.-Col. A. W. Alcock, C.I.E., F.R.S.
 June 24, 1854. Dr. John A. Voelcker

Sir HENRY ORAM, Engineer Vice-Admiral, received his technical training in Devonport Dockyard and at the Royal Naval College, Greenwich. He was Engineer-in-Chief of the Fleet from 1907 until 1917.

Sir FREDERICK GOWLAND HOPKINS, known widely for his long-continued researches in chemical physiology, especially in relation to the nutrition of the human subject, has been, since 1914, professor of biochemistry in the University of Cambridge. In 1918 the Royal Society awarded him a Royal medal. He was, indeed, among the very earliest to establish that minute quantities of certain bodies, the nutritive value of which had hitherto been unsuspected, exert an enormous influence upon growth and upon normal adult nutrition. He showed that without these accessory factors—vitamins—a diet otherwise full and seemingly complete is incapable of allowing growth, and even of maintaining body weight or life.

Sir HUMPHRY ROLLESTON, who was born at Oxford, was educated at Marlborough and St. John's College, Cambridge. Regius professor of physic in the University of Cambridge since 1925, he was lately president of the Royal College of Physicians.

Dr. HALLIBURTON, emeritus professor of physiology in King's College, London, a post which he adorned for thirty-three years, is a Londoner. He was educated at University College School, London, and University College. President of the Physiological Section at the British Association's Belfast meeting in 1902, he gave an address on the position (as it then stood) of chemical physiology.

Sir DANIEL HALL was educated at Manchester Grammar School and Balliol College. From 1902 until 1912 he was director of the Rothamsted Experimental Station. As chief scientific adviser to the Ministry of Agriculture and Fisheries, Sir Daniel has now an enlarged scope of work.

Prof. PAUL H. RITTER VON GROTH was born at Magdeburg and educated at the universities of Freiburg, Dresden, and Berlin. From 1872 until 1883 he occupied the chair of mineralogy in the University of Strasbourg, leaving to become professor of mineralogy in the University of Munich and curator of minerals in the State Museum, Munich. Prof. Paul von Groth is a recognised authority in chemical and physical crystallography. For many years he was editor of the *Zeitschrift für Krystallographie und Mineralogie*. In 1908 he was awarded the Geological Society's Wollaston medal.

Sir BALDWIN SPENCER, formerly (1887-1921) professor of biology in the University of Melbourne, was born at Stretford, Lancashire, and he was educated at Owens College and Exeter College, Oxford. A frequent correspondent of NATURE, we note a letter of his to this journal, so far back as 1885, on "The Eggs of Monotremes," and another, in 1886, on "The Parietal Eye of *Hatteria*."

Lieut.-Col. ALCOCK was educated at Mill Hill and the University of Aberdeen. For fourteen years he was superintendent of the Indian Museum.

Societies and Academies.

LONDON.

Royal Society, June 10.—A. C. Downing, R. W. Gerard and A. V. Hill: The heat production of stimulated nerve. The method adopted is thermo-electric. The thermopile contains about 300 couples of constantan-silver, made by electroplating (Hamilton Wilson), and current is recorded (to 2×10^{-10} amp.) by two moving-coil galvanometers coupled by a thermal relay (Moll and Burger). The heat appears in two stages: (a) during stimulation there is a rise of temperature of about 7×10^{-60} C. per second of stimulation; (b) in the succeeding ten minutes there is gradual further production of heat about eight times as great as in stage (a), which for the present we attribute to a recovery process analogous to that occurring in muscle. Total heat corresponds closely to extra carbon dioxide found by Parker for stimulated nerve. There is difficulty, however, in explaining the resting values of oxygen and carbon dioxide found by him and others.—A. S. Parkes: (1) Observations on the oestrous cycle of the albino mouse. The average duration of the oestrous cycle (meta-oestrus to oestrus inclusive) of the unmated albino mouse was 5.7 days. The average duration of the cycle in normal females mated with vasectomised bucks was 11 days. This postponement of the next oestrous period is considered to be due to the formation of a decidua by the uterus, on mechanical stimulus by the vaginal plug, a process which has been demonstrated in the albino rat by Long and Evans. Pregnancy follows the detection of the vaginal plug in about 70 per cent. of cases, the gestation period being 19 days in almost all cases. The effect of lactation is entirely to inhibit oestrus (apart from the immediate post-partum period) for at least three weeks if an appreciable number of young are suckled. After the inhibition due to suckling, the cycle goes suddenly back to normal, even in cases where lactation is prolonged. Unilateral ovariectomy does not appear to influence the cycle. (2) On the occurrence of the oestrous cycle after X-ray sterilisation. Of 25 mice sterilised by exposure to X-rays at three weeks old, 22 experienced at least one period of oestrus when puberty was reached. In all, 53 periods of oestrus were observed in these animals, many of which exhibited a series of complete cycles of the normal length. Since none of these animals had oocytes, follicles, or follicular tissue in the ovaries, neither follicles nor *corpora lutea* appear to be essential to the occurrence of the normal cyclic activity of the uterus and vagina. The oestrous-producing hormone seems to be formed by the inter-follicular tissue, though also possibly by the follicles under normal conditions.—I. Gordon: The development of the calcareous test of *Echinocardium cordatum*. Bilateral symmetry is apparent almost from the beginning. The complex plating characteristic of the adult is only acquired at a comparatively late stage. There is no trace of teeth or of the lantern ossicles, but the perignathic girdle is represented by a single internal process. The membrane round the mouth is at first circular, but soon becomes pentagonal and then gradually alters to the 'reniform' outline of the adult peristome.—H. R. Hewer: Studies in colour changes of fish (ii-iv).—A. V. Hill: The visco-elastic properties of smooth muscle. Gasser and Hill found that the sudden release during an isometric tetanus of the skeletal muscle of a frog is followed by an instantaneous drop of tension, and then by a gradual re-development along a curve identical with that of the original rise when stimulation began. This observation has been repeated on the smooth muscles of *Holothuria nigra*, in which the speed of contraction is less than 1/100 of that of frog's striated