Science News a Century Ago

The Snake Nut Tree of Guiana

AT a meeting of the Linnean Society held on June 6, 1837, two communications were read from Robert Hermann Schomburgk (1804–65), who in 1831–35 explored British Guiana on behalf of the Royal Geographical Society. The first of these dealt with several new species of Orchideœ found in Guiana, and the second with the snake nut tree. The nut, he said, was the size of a walnut, and when the kernel was opened, and the membrane removed, there was an appearance of a snake lying with its body coiled up, the head, eyes and mouth being very distinct. From this appearance, by some singular analogy, it was employed as a remedy for the bites of snakes, for which it enjoyed a considerable reputation. The colonists were unacquainted with the mode of its growth as they only found it on the banks of brooks and rivulets after floods, but imagined that it grew on a creeper by the side, which explained the reason that it was found on the low islands and in these situations. Having been informed of the whereabouts of the tree, Schomburgk visited it, but it was not sufficiently far advanced for him to recognize the class and order to which it belonged. The tree was of the first magnitude, its branches dividing at a height of 40–50 feet. It contained nothing remarkable except the fruit, which was not known to possess any medicinal properties.

Schomburgk, who was born and educated in Germany, was Government Commissioner for surveying and making boundaries in British Guiana in 1841–43, establishing the 'Schomburgk line'. In 1844 he was knighted.

Vyse's Exploration of the Egyptian Pyramids

IN 1835–37, Colonel (afterwards Major-General) Richard William Howard Vyse (1784–1853) explored the pyramids of Egypt, and some of his discoveries were described in letters read to the Royal Society of Literature on June 8, 1837. The principal results of his exertions were the discovery of three large chambers in the Great Pyramid and the excavation of a remarkable mummy pit in its vicinity. The first of the newly opened chambers was 38 ft. 6 in. from east to west and 17 ft. 1 in. from north to south. This had been named the Wellington Chamber by Colonel Vyse, and he had had that illustrious name inscribed on its northern walls. The second chamber he had named after Nelson, and the third after Lady Arbuthnot, who was present at its discovery. The three chambers were above one another, and it was supposed their object was to lessen the superincumbent weight above the King's Chamber. A great quantity of drawings had been sent home to be engraved, including accurate sections of all the pyramids, and facsimiles of hieroglyphics in the newly discovered chambers.

The Royal Astronomical Society

THE last meeting of the session of the Royal Astronomical Society was held on June 9, 1837, when several papers were read. Baily, the president, who was in the chair, communicated a paper on the non-existence of the star called 42 Virginis, the insertion of which into the British Catalogue of Flamsteed he attributed to an error in computation. Baron Zach had given, in his zodiacal catalogue, a star which he called 42 Virginis, which, however, did not agree with the position given by Flamsteed, but what was very singular, this star also was not then found in the heavens.

Another paper was by Main, principal assistant at the Royal Observatory, on the position of the node, and the inclination of Venus. It appeared that Encke had altered the place of the node from the observations of the transits of 1761 and 1769, and this was found not to correspond with the best modern observations. Main therefore had undertaken the arduous task of determining these positions anew from observations made by Airy at Cambridge.

Premiums offered by the Zoological Society

IN the *Athenæum* of June 10, 1837, it was stated that the Council of the Zoological Society had determined to offer annual medals, or equivalent sums of money, by way of premiums for subjects connected with zoology. The premiums for 1837 were to be awarded for the following: (1) For importing either a pair of musk oxen, or a specimen of the hippopotamus, male or female; or a pair of the *Ornithorhynchus paradoxis*; (2) to the breeder of the greatest number of curassows in the year 1837; (3) to the importer of a male and female Indian pheasant, of a species not already alive in Great Britain; (4) to the breeder of the best specimens of Indian fowls in the year 1837; (5) to the breeder of the most rare or most interesting foreign quadruped in the year 1837; (6) for the best essay on the care and treatment of the species of the genus *Felis* in confinement.

University Events

ABERDEEN.—A capital sum has been given anonymously to the University for the foundation of a part-time lectureship on psychopathology. It is a condition of the gift that the lecturer shall not be an alienist and that the clinical work should be done at the Royal Infirmary. £500 has also been received from Lord Glanely for research in rheumatism.

CAMBRIDGE.—Dr. H. Hamshaw Thomas has been appointed reader in plant morphology; Dr. W. B. Lewis, of Gonville and Caius College, University lecturer in physics; Dr. H. Carmichael, of St. John's College, E. S. Shire, of King's College, University demonstrators in physics; and Dr. W. C. Price (Wales and Johns Hopkins), and Dr. E. A. Moelwyn-Hughes, of Corpus Christi College, University demonstrators in chemistry.

G. L. Clark, of Fitzwilliam House, has been elected to the Sheepshanks Exhibition for 1937.

It is proposed that a second assistant directorship of research in colloid science be established, and that the General Board be authorized to appoint in the first instance to this post Dr. J. H. Schulman.

The following have been approved for the degree of Sc.D.: B. H. C. Matthews, of King's College; R. S. Morrell, of Gonville and Caius College; G. C. Steward, of Gonville and Caius College; and L. R. Cox, of Queens' College.

LONDON.—The University enters upon its second centennium (the completion of its first hundred years was celebrated last July) with a student enrolment

of approximately twenty-five thousand. The report recently presented by the acting principal on the work of 1936–37 gives the number of internal students as 12,734, and of these nine tenths were reading for degrees and diplomas, namely, in science (3,727), medicine (3,309), arts (2,957), engineering (1,351) and economics (1,001). Of the external students, some 11,000 in all, 6,779 entered for examinations, and of these nearly three fifths were receiving instruction in institutions in London (1,200) or elsewhere; two thirds of the remainder were prepared by correspondence courses and the rest wholly by private study. An indication of the world-wide extent of the university's contacts is to be found in the fact that the lecturers in the forty-nine courses of special lectures arranged by the Senate were drawn not only from the British Isles but also from Austria, Belgium, China, France, Germany, Holland, Hungary, Italy, South Africa, Sweden and the United States. The report chronicles a significant event in the field of physical culture: for the first time in its history, the University took part in an international athletic match, namely, between teams from the Universities and from boys' schools of Paris and London.

A Carpenter Medal with a money prize of the value of £20 in all will be awarded this year for work of exceptional distinction on statistical, genetic, comparative or experimental psychology including the functions of the cerebro-spinal system, for which a doctor's degree (other than the Ph.D.) has been awarded during the period of three years ending May 31, 1937. Applications should be made not later than June 10 to the Academic Registrar, University of London, from whom further information may be obtained.

OXFORD.—At Encænia on June 23, honorary degrees will be conferred upon the following, among others:—D.C.L.: The Right Hon. W. G. A. Ormsby-Gore, Hon. R. H. Brand and Sir Herbert Baker. D.Sc.: Prof. Walter Nernst. D.Litt.: Dr. G. P. Gooch.

Prof. W. L. Bragg will give the Robert Boyle Memorial Lecture in the Museum at 8.45 p.m. on June 11. His subject will be, "The Crystallization Patterns of Alloys".

Societies and Academies

Edinburgh

Royal Society of Edinburgh, May 3.

H. H. READ: Metamorphic correlation in the polymetamorphic rocks of the Valla Field Block, Unst, Shetland Islands. Three metamorphisms under widely different physical conditions have affected the rocks of the western part of Unst. The mineral assemblages produced during each metamorphism in rocks of different compositions—pelitic, calcareous, siliceous, migmatitic, granitic and hornblendic—are correlated both isophysically and isochemically. It is concluded that in polymetamorphism the stability of an assemblage depends upon the bulk-composition of the rock, and that minerals cannot be considered apart from the rocks in which they occur.

J. SMALL: Quantitative evolution (2). Compositæ *Dp*-ages in relation to time. Using a geological time scale similar to that of Barrell, but with a longer Pliocene like that indicated by Urry (NATURE, Feb. 20, p. 334), all the five average tribal *Dp*-ages of Compositæ are found to lie on or near a curve with the formula—$Dp.k+n.d.=t_k.2^n$; for Compositæ $k=0\cdot6$; $d=0\cdot9$; $t_k=1\cdot09375$ million years. From this bat curve, it is calculated that the free doubling period is approximately two million years. (3). *Dp*-ages in Gramineæ. The bat curve for Compositæ is applied to the grasses. The evolutionary sequences of *Dp*-ages in terms of time are found to be in almost complete agreement with the views given by Bews in his "World's Grasses".

W. GRAHAM-SMITH and T. S. WESTOLL: A new long-headed Dipnoan fish from the Upper Devonian of Scaumenac Bay, P.Q., Canada. During the summer of 1934, three specimens of a very distinct new Dipnoan were found at Scaumenac Bay, Quebec. These are described under the name *Fleurantia denticulata*, gen. et sp. nov. The species differs from other Dipnoans in having an extreme elongation of the snout. The dentition consists of a series of large conical teeth and a granulation of smaller teeth. The snout-elongation is shown to be probably correlated with the development of a sectorial dentition and with corresponding feeding-habits.

W. J. HAMILTON: The early stages in the development of the ferret: the formation of the mesoblast and notochord. The mesoblastic cells arise from the ectoderm at the site of the future primitive streak. The cells spread anteriorly and laterally as two sheets which meet at the anterior part of the embryonic disk. Henson's Knot does not appear until the primitive streak is well formed and it is separated by a narrow neck from the anterior extremity of the streak. From the anterior part of Henson's Knot the archenteric process with the archenteric canal develops. The cells of the archenteric process become intercalated in the yolk-sac endoderm and form the archenteric plate which terminates anteriorly in the prochordal plate.

W. O. KERMACK and A. G. M'KENDRICK: Some distributions associated with a randomly arranged set of numbers. In a previous paper, certain frequency distributions associated with the occurrence of sequences or 'runs' of continuously increasing or decreasing numbers in a long series of randomly arranged unequal numbers, have been made use of as the basis of a test of randomness. The general mathematical theory of the distributions of such runs is now discussed for (*a*) an infinite linearly arranged set, (*b*) a finite linearly arranged set, and (c) a finite cyclicly arranged set of numbers. The distributions are in general obtained as solutions of difference equations, and expressions are given for the generating functions of these frequency distributions.

K. B. LAL: Immature stages of some Scottish and other Psyllidæ. In the course of previous researches (*Trans. Roy. Entom. Soc.*, 83; 1934) the author realized the difficulty of associating the immature stages of the thirteen species discussed with their particular species. Full descriptions of these stages are therefore given for each species, and the various characters important in distinguishing the species are clearly and carefully illustrated.

D. S. RAITT: The benthic Amphipoda of the north-western North Sea and adjacent waters. Some 3,000 amphipods secured over the Scottish area by Peterson grab and from haddock stomachs were identified and their distributions studied. When division of the North Sea by the 40 and 100 metre depth contours was adopted, the rates of occurrence of the order in the three zones formed was 3 : 2 : 1.