

Science News a Century Ago

The Horticultural Society

A MEETING of the Horticultural Society was held on August 7, 1838, H. M. Dyer, vice-president, being in the chair. "The specimens," said *The Times*, "exhibited some interesting varieties. One of the most valuable was the vanilla plant, cultivated by Professor Motreu, of Liège, who gave it the same attention as is employed in the cultivation of melons and cucumbers. In the first year of its growth it produced 50, and in the second year upwards of 160 fruits, and the success of its cultivation led to the belief that it might be introduced into Europe as an article of profit. From the gardens of the Society was a Trinidad pineapple, weighing 5 lb. 12 oz. This is one of those extraordinary fruits that grow on that island, near a pitch lake, and are there met with of a weight of 28 lb., which they might attain in this country, were the soil and cultivation properly known." The cultivation of the vanilla plant was dealt with a week or two later by Prof. Motreu in a paper to the British Association in Newcastle.

The *Athenæum* and School Buildings

IN its issue of August 11, 1838, the *Athenæum* dealt at length with a "Report of the Secretary of the Board of Education on the Subject of School Houses" published at Boston, U.S.A. Always a persistent advocate of national education, the *Athenæum* remarked that, "Habituated as we are to opposition to all national education that is directed to a higher object than a polemic triumph, we were almost startled at the plain good sense of the men of Boston, who have brought their time and attention to bear upon the philosophy of school accommodation". Planning, ventilation, windows, lighting, heating, location, desks and seats, and playgrounds were all the subject of discussion in the report, which said that "when it is considered that more than five sixths of all the children in the State spend a considerable portion of the most impressionable period of their lives in the school house, the general condition of those buildings, and their influence upon the young stand forth at once as topics of prominence and magnitude". All those readers who had the improvement of our domestic education at heart were enjoined to procure reprints of the report for cheap or gratuitous circulation.

Honours to Men of Science

UNDER the above heading, the *Mechanics Magazine* of August 11, 1838, said: "Sir John Herschel is, we believe, the first Englishman who has ever received a baronetcy purely on account of his scientific acquirements. His father was only a Hanoverian knight, which was also the honour enjoyed by himself previous to the late coronation. Sir Edward Lytton Bulwer is only the second *literary* baronet, having been preceded by Sir Walter Scott. No great inventor has ever received a similar honour; Sir Richard Arkwright was indeed knighted, but that was not on account of his mechanical merits, but in the usual routine, as the bearer of an address of congratulation on His Majesty's escape from the knife of Peg Nicholson, or some equally important occasion." In connexion with this, it may be remarked that Lord Liverpool, when Prime Minister, offered a baronetcy to Watt, who, however, declined it.

Societies and Academies

Dublin

Royal Dublin Society, June 21.

REPORT OF THE RADIIUM COMMITTEE FOR 1937.

10,110 millicuries of radon were issued during the year, and reports received from hospitals and the larger private users record the treatment of 502 cases of malignant and 97 of non-malignant diseases. Of all cases of malignant disease treated by any method in these institutions, more than fifty per cent received radium treatment. Out of a large number of malignant cases, of which detailed results are recorded, some sixty per cent were apparently cured, or at least were free from symptoms at the end of a year. Records are also included showing the number of cases treated in former years which are known to be still alive. One large user comments on the imperative need for taking all possible steps to ensure that patients come forward for treatment before the disease has advanced so far as to render the results hopeless.

W. R. G. ATKINS: A modified use of the hæmocytometer for counting sparse fields. By suitable focusing, it is possible to arrange that the entire circular microscope field just encloses the square millimetre of the hæmocytometer, and thus the entire field being of a known area can be used for counting purposes. In this way, a number of sample counts can be effected on a single slide.

Paris

Academy of Sciences, June 13 (*C.R.*, 206, 1769-1839).

LEON LECORNU: The pressures experienced by the envelope of an ellipsoidal balloon.

ROBERT LESPIEAU: The synthesis of adonite.

JEAN TILHO and CAMILLE ARAMBOURG: The discovery, by Stephane Desombre, of a fossil elephant in the centre of the Sahara.

JEAN DELSARTE: Certain functional transformations relating to linear partial differential equations of a second order.

NICOLAS CIORANESCU: A generalization of the first formula of the mean and the polynomials of Tehebiechef.

KWOK PING LEE: The multiple values and the directions of Borel of meromorph functions.

ALBERT PFLUGER: The variation of the argument and the distribution of the zeros of a certain class of analytical functions.

JEAN LUNEAU: The influence of the pressure on the resistance to movement in air for very low values of the Reynolds number.

GEORGES DEDEBANT and PHILIPPE WEHLE: The equations to the probable values of a turbulent fluid.

LUCIEN REINGOLD: The calculation of the temperatures and instantaneous maximum pressures in explosion motors.

FERNAND CHARRON: The distribution of heat between two bodies rubbing together.

RAYMOND JOUAST, MARCEL PICARD and RENE HÉROU: The determination of the ratio of the international ohm to the absolute ohm. The method is based on a standard inductance (of known geometrical dimensions) and the frequency of an alternating

current, and gives a ratio of the international ohm to the absolute ohm of 1.00052. This is compared with earlier values, 1.00045 (United States National Bureau of Standards) 1.00050 (National Physical Laboratory), and 1.00048 (Physikalisch-Technische Reichsanstalt, Germany).

PIERRE GRIVET: A new phenomenon in the working of the photo-electric cell at high frequency.

VICTOR SINN: Researches on the reactions at the positive electrode of the lead accumulator. Determination of the amount of sulphuric acid used by the positive plate of a lead accumulator during discharge, when opposed to the hydrogen electrode, gave figures agreeing with the theory of Gladstone and Hibbert within 1 per cent.

JACQUES DE LASSUS SAINT-GENIES: The conditions of correct projection of crimped films.

PAUL GESTEAU: A method for the quantitative analysis of substances in solution by their absorption spectrum in the field of the ultra-violet.

GEORGES ALBERT BOUTRY and JEAN GILLOD: The properties of a new type of photo-emissive cell. Studies of a cell in which the cathode was formed by a thin layer of caesium deposited on silver.

MARCEL MATRICON: The application of the method of the self-consistent field to atomic nuclei.

PAUL LAFFITTE: The projection of flame in gaseous mixtures and on the phenomenon of shock in explosion motors.

GEORGES CARPENI: The preparation, electrometry and spectrography in the ultra-violet of *d*-araboscorbic acid.

LOUIS HACKSPILL and LAMBERT A. VAN ALTNEA: The action of caesium on carbon monoxide. Caesium combines at the ordinary temperature with carbon monoxide, even under low pressure, giving a stable exothermic compound (COCs)_n, probably (COCs)₂, reacting with dilute acids giving glyoxal.

ANDRÉ ADRIEN SANFOURCHE: The preparation and properties of the neutral lithium phosphate. Neutral lithium phosphate, free from LiOH, can only be obtained by neutralizing phosphoric acid with the exact proportion of lithium hydroxide. Its composition is Li₃PO₄ · 9.5 H₂O.

MME. YVONNE KHOUVINE, GEORGES ARRAGON and YOSHINORI TOMODA: The oxidation of tetramethyl-*α*-*d*-methyltagatoside with nitric acid.

Mlle. DINAH BIQUARD: The Raman spectra of indanone.

CHARLES EMILE BRAZIER and LÉONIDE GÉNAUX: The earthquake of June 11, 1938. Results shown by the seismographs at the Parc Saint-Maur Observatory.

MENGLI ENIKEFF: Researches on the subterranean waters of the interior delta of the Niger.

HENRI BRANDSTETTER and JEAN LAGRULA: Values of the magnetic inclination in the Sahara and the Sudan.

RENÉ SOUÈGES: The embryogeny of the Nyctaginaceæ. The development of the embryo in *Oxybaphus viscosus*.

MARC SIMONET and PIERRE DANSEREAU: Several tetraploid mutations of *Petunia* appearing after treatment with colchicine.

WALTER RIESE: The structure and function of the brain of the newly born bear.

FERNAND LE CHUITON, CHARLES MISTRAL and JEAN DUBREUIL: Attempts at the vaccination of the pig with the virus of swine fever after passage through the guinea pig. Rapid loss of virulence for the pig and also of the antigenic power against the original virus.

Appointments Vacant

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:

ASSOCIATE PROFESSOR OF ENTOMOLOGY in the Punjab Agricultural Service—The High Commissioner for India, General Department, India House, Aldwych, London, W.C.2 (August 15).

LECTURER IN ELECTRICAL ENGINEERING in the County Technical College, Worksop—The Principal (August 15).

PRINCIPAL of the Hendon Technical Institute—The Secretary to the Education Committee, Education Offices, 10 Great George Street, Westminster, S.W.1 (August 27).

LECTURER IN METALLURGY in the University of Leeds—The Registrar (September 1).

PRINCIPAL of the Bridgwater Art and Technical Institute—The Chief Education Officer, County Hall, Taunton (September 3).

LECTURER IN PHYSIOLOGY in the Portsmouth Municipal College—The Registrar.

Reports and other Publications

(not included in the monthly Books Supplement)

Other Countries

Spisy vydávané Přírodovědeckou Fakultou, Masarykovy University. Čís. 248: O difúzních potenciálech, VI (On the Diffusion Potential, VI). Napsal V. Čupr. Pp. 15. Čís. 249: Trois notes sur les espaces abstraits (Tři poznámky o abstraktních prostorech). Par Bedřich Pospíšil. Pp. 9. Čís. 250: Morfologický vývoj těšínského podbeskydí (Morphologische Entwicklung des Teschener Hügellandes). Napsal Fr. Vitásek. Pp. 18. Čís. 251: Processus lemuringicus. Von Dr. Karl Kahn. Pp. 23. Čís. 252: Akustická měření katodovým oscilografem (Akustische Messungen mit dem Kathodenzillographen). Napsal J. Zahradníček. Pp. 10. Čís. 253: O pasivité chromu a ferrochromu v kyselých roztocích (Passivity of Chromium and Ferrochromium in Acid Solutions). Napsal V. Čupr a O. Lasák. Pp. 16. Čís. 254: O přemístění rovnostranného trojúhelníka v prostoru a speciální ploše osměho stupně vytvořené tímto pohybem (Sur le déplacement d'un triangle équilatéral dans l'espace et sur une surface spéciale d'ordre huitième). Napsal Miloslav Peříšek. Pp. 28. Čís. 255: Vliv přípravy kyslíčkové zinečnatého na jeho redukci vodíkem (On the Influence of Preparation of Zinc Oxide on its Reduction by Hydrogen). Napsal F. Schacherl. Pp. 13. Čís. 256: Sur les caractères des points dans les espaces topologiques (O charakterech bodů v topologických prostorech). Par Bedřich Pospíšil. Pp. 23. Čís. 257: Pohlavní dvojitvárnost larev a kukel pakomárů (Geschlechtsdimorphismus der chironomidenlarven und -Puppen). Napsal Jan Závřel. Pp. 23. Čís. 258: i. Sur les espaces compacts (O kompaktních prostorech); ii. Sur les caractères des points dans les espaces \mathbb{E} (O charakterech bodů v \mathbb{E} -prostorech). Par Eduard Čech et Bedřich Pospíšil. Pp. 14. (Brno: A. Píša.) [197]

U.S. Department of Agriculture. Circular No. 478: The American Dog Tick, Eastern Carrier of Rocky Mountain Spotted Fever. By F. C. Bishop and Carroll N. Smith. Pp. 26. 5 cents. Farmers' Bulletin No. 1798: Control of Common White Grubs in Cereal and Forage Crops. By Philip Luginbill. Pp. 20. 5 cents. Technical Bulletin No. 599: Biology of the Pea Weevil in the Pacific Northwest with Suggestions for its Control on Seed Peas. By A. O. Larson, T. A. Brindley and F. G. Hinman. Pp. 48. 10 cents. (Washington, D.C.: Government Printing Office.) [207]

Mexico's Resources for Livelihood: a Study of the Influence of Foreign Ownership. By Alejandra Carrillo. Pp. 34. 25 cents. Gold and Poverty in South Africa: a Study of Economic Organization and Standards of Living. By Max Yergan. Pp. 24. 15 cents. (The Hague and New York: International Industrial Relations Institute.) [217]

Briefe Franz Xaver Freiherrn von Zach und seines Nachfolgers Bernhards von Lindenau von 1791-1816 an P. Martin Alois David. Herausgegeben von Otto Seydl. (Publikace Pražské Státní Hvězdárny, Č. 11.) Pp. 206. (Praha: Státní Hvězdárna Republiky Československé.) [246]

Lucknow University Studies. No. 10: The General Field Theory of Schouten and Van Dantzig. By Prof. N. G. Shabde. Pp. iv+58. (Lucknow: Lucknow University.) [17]

Verhandelingen der Koninklijke Nederlandsche Akademie van Wetenschappen. Afdeling Natuurkunde, Sectie 1, Deel 16, No. 4: Second Report on Viscosity and Plasticity. Prepared by the Committee for the Study of Viscosity of the Academy of Sciences at Amsterdam. Pp. viii+287+2 plates. (Amsterdam: N.V. Noord-Hollandsche Uitgeversmaatschappij.) [17]

Festschrift zum 60 Geburtstag von Prof. Dr. Embrik Strand: enthaltend dem Jubilar gewidmete Arbeiten ausländischer Zoologen und Paläontologen. Vol. 1. Pp. ii+644+14 plates. Vol. 2. Pp. ii+652+37 plates. Vol. 3. Pp. ii+608+20 plates. Vol. 4. Pp. ii+784+16 plates. (Riga: Sistematisks Zoologijas Instituts.) [17]

U.S. Department of Agriculture. Circular No. 474: Muskrat Investigations in Dorchester County, Md., 1930-34. By Frank R. Smith. Pp. 24. 10 cents. Leaflet No. 161: The Eastern Tent Caterpillar. By F. M. Wadley. Pp. 4. 5 cents. Technical Bulletin No. 601: Selenium Occurrence in Certain Soils in the United States with a Discussion of Related Topics; Third Report. By Horace G. Byers, John T. Miller and K. T. Williams, and H. W. Lakin. Pp. 75. 15 cents. Technical Bulletin No. 607: Occurrence of the Beet Leafhopper and Associated Insects on Secondary Plant Successions in Southern Idaho. By D. E. Fox. Pp. 44. 10 cents. (Washington, D.C.: Government Printing Office.) [267]