

Science News a Century Ago

Captain Back's Arctic Expedition

The Times of October 13, 1835, contained a statement by William Bowles, the chairman of the Arctic Land Expedition, to the subscribers who financed the expedition. In the course of the statement, he reviewed the circumstances which led to the project of sending out a party to find Captain Ross, referred to the eminent services of Captain Back, his companion Mr. King the surgeon and to the assistance given in the United States and Canada and to the eight men who had made the boat journey to the coast with Captain Back. The subscriptions, Mr. Bowles said, included £2,000 from the Government, £500 from the Hudson's Bay Company, £105 from the Lord Mayor and Corporation of London, £105 from the Committee of Lloyds and £100 from the Corporation of Trinity House. "The Committee," he said, "has the highest possible gratification in announcing that, on the recommendation of the Lords Commissioners of the Admiralty, His Majesty in Council has been pleased to grant an order, dispensing in Captain Back's case, with the actual service afloat, which according to the rules of the Navy, would have been otherwise requisite to qualify him for a step in his profession. He has thus been promoted in the most gracious manner, without delay; and a munificent individual (Robert Holford, Esq., of Westcliff, Isle of Wight) has remitted 100£ to be divided in equal shares among his boat's crew, the partakers of his greatest difficulties and dangers".

Lyell and Mantell

SHORTLY after his return home from his tour in France, Switzerland and Germany, Lyell on October 14, 1835, wrote from London to Dr. Gideon Mantell at Brighton giving him an account of some of his geological excursions. In the course of his letter, he said: "I entered Switzerland by Porrentrui, and there I had Thurmann for my guide, who gave me in a short time a beautiful insight into the structure of the Jura . . . and I was glad to verify his observations in the field, and to see his beautiful collection of Jurassic shells, and his attempt to assimilate the oolitic series and their fossils of the Swiss Jura with our English oolitic groups. I afterwards had a work in another part of the Jura with some geologists at Neuchâtel, where the chalk, as it appears to me by its fossils, fills the bottom of the valleys of the Jura limestone. I next had a work with Studer at Berne, and then had a work of about six weeks in that part of the Swiss Alps which is called the Bernese Oberland. . . . People seem to be in high spirits here on the success of the Dublin meeting. Agassiz looks in good health, and is satisfied with the great progress he has made, and looks forward with great pleasure to a first visit to Brighton. . . . I have been writing this by candle-light after the labours of the day, and as you know my eyes of old, you will excuse its not being in my own handwriting. . . ."

Prof. Tiedemann in Edinburgh

ON October 17, 1835, quoting from the *Scotsman*, *The Times* said: "The celebrated Professor Tiedemann of Heidelberg has been in Edinburgh for some days. He is collecting materials for a work on the comparative anatomy of the brain and has visited

London, Glasgow and Dublin. In Edinburgh he has pursued his researches in the Museum of the Royal College of Surgeons, the College Museum and the Museum of the Phrenological Society, which last he has visited on three successive days for the purpose of weighing and measuring the skulls of different nations". Tiedemann, who was born at Cassel in 1781 and died in 1861 at the age of seventy-nine years, was made professor of zoology, anatomy and physiology at Heidelberg in 1816.

Societies and Academies

PARIS

Academy of Sciences, August 26 (*C.R.*, 201, 461-476). MARCEL DELEPINE: The work of the late Antoine Nicolas Guntz. PIERRE DE VANSAY: Drawing the azimuth line on a Mercator projection. S. CARRUS: The successive evolutes of a skew curve. ARNAUD DENJOY: Groups of homographic substitutions. RAPHAEL SALEM: The generalisation of certain lemmas of Van der Corput and applications to trigonometrical series. MARCUS FRANCIS: The electrolytic method of preparing thin deposits of U_3O_8 . Starting with a salt of uranium not carefully purified, other radioactive substances deposit first during electrolysis and a satisfactory deposit of uranium oxide cannot be obtained. LUBOMIR DONTCHEFF and CHARLES KAYSER: The signification of respiratory coefficients below 0.7 in certain poecilotherms.

September 2 (*C.R.*, 201, 477-492). HENRY GAULT and MATUS COGAN: Formyltropic ester. This is produced by the condensation of formylphenylacetic ester with formaldehyde. FRANÇOIS DUPRE LA TOUR: Polymorphism in the series of the normal fatty diacids. JACQUES DE LAPPARENT: An essential constituent of fullers earth. HENRI LONGCHAMBON: The essential mineralogical constituents of clays, and especially of fullers earth. ANDRÉ CAILLEUX: Traces of important interglacial aerial action in Poland. GEORGES BOURGUIGNON: Chronaxy in voluntary movement and in pain in normal man. Static chronaxy and dynamic chronaxy. MME. ISABELA POTOP: Researches on the acid-soluble phosphorus, the mineral phosphorus and the ultra-filtrable phosphorus of the blood.

September 9 (*C.R.*, 201, 493-508). The president announced the death of LÉON FREDERICQ, *Correspondant* for the Section of Medicine and Surgery. PAUL LÉVY: The law of large numbers for connected variables. G. PFEIFFER: A special method of integration of complete systems of linear partial differential equations of the first order of an unknown function. ARNAUD DENJOY: The geometry of homographic groups. ANDRÉ BRIOT and BORIS VODAR: The absorption spectra in the ultra-violet of gaseous, dissolved or liquid ammonia. PIERRE DONZÉLOT and MAURICE CHAIX: The Raman spectra of substances with two benzene nuclei. The substances examined included diphenyl and compounds of the type $C_6H_5.X.C_6H_5$, where X was CH_3 , O, S, Se, $CH(OH)$ or Hg. Mlle. BERTHE BIECHELER: The existence of a chromatic cyclosis in the peridineans. JOSEPH KAHN and MME. LUBOV CHEKOUN: The disengagement of ammonia by the brain, following a state of natural stimulation.

AMSTERDAM

Royal Academy of Sciences (*Proc.*, 38, No. 7, September 1935). C. U. ARIËNS KAPPERS: Stability and variability of Central and Palæo-Asiatic index maxima and some remarks on the Greenland Eskimo. G. VAN ITERSOM, JR. and J. COUMOU: A few remarks on the iodine-amylum reaction. Discussion of the nature of the blue complex and observations of the temperature of gelatinisation of starch in the presence of iodine and potassium iodide, separately and together. A relatively large rise of the gelatinisation temperature was observed in the last case. J. A. SCHOUTEN and J. HAANTJES: On general conformal geometry in projective treatment. A. A. NIJLAND: Mean light curves of long period variables. (24) *R. Lacertae*. The light of this star varies with a period of 299 days and an amplitude of 5.07 magnitudes. H. R. KRUYT and H. G. BUNGENBERG DE JONG: Extension of the theory of complex coacervation to ionic disperse systems. Experiments showing that coacervation (unmixing) occurs not only in colloidal solutions but also in supersaturated solutions of electrolytes. Miss A. M. HARTSEMA and A. H. BLAAUW: Shifting of periodicity by means of high temperatures. Adaptation and export to the southern hemisphere (2). By keeping daffodil bulbs at 28° until the next spring they can then be exported to the southern hemisphere to flower in late August. J. H. GISOLF: A demonstration experiment concerning the use of a Lummer plate. Shows the resolving power is markedly dependent on the direction of polarisation of the incident light, being greatest when the electric vector is parallel to the plane of the plate. A. ELLIOTT: A note on the β bands of boron monoxide. Data on the magnitude of the spin doubling in these bands, the existence of which had been questioned by Funke and Simons. V. HLAVATY: On conformal geometry (2). Applications particularly to the problem of the affine normals. C. S. MEYER: Integral expressions for Lommel and Struve functions (2). J. W. A. VAN KOL: Correction of some numbers of biquadratic space-curves of the first kind. There are 540 curves k^4 which meet four given straight lines. F. W. WENT: Coleoptile growth as affected by auxin, aging and food. Experiments on the function of auxin in which the auxin content is artificially increased. E. FREY: Experimental researches on the nucleus basalis opticus in the porpoise. E. FREY: The nucleus basalis opticus of the porpoise. T. KUROTSU: On the nucleus magnocellularis periventricularis in reptiles and birds. H. G. BUNGENBERG DE JONG and J. BONNER: Phosphatide autocomplex coacervates as ionic systems and their relation to the protoplasmic membrane. Suggests that the special properties of the protoplasmic membrane depend upon one or more double layers of oriented phosphatide ions similar to the double films of the phosphatide auto-complex coacervate.

CAPE TOWN

Royal Society of South Africa, July 17. A. J. H. GOODWIN: Recent changes in terminology in European prehistory. The term Clacton has been introduced in Europe to cover a flake culture which divides the Chellean and Acheulean. When Gabriel de Mortillet first organised the prehistoric period of France into a single chronological scheme, the site at Le Moustier shelter was made the type site of a major period. Later work by Comment on the

gravels of the Somme River necessitated the introduction of the term Levallois to cover part of the complex present at Le Moustier. Recent work by Dr. Ami at Combe Capelle, and by Henri Martin at La Quina have rendered a further analysis necessary. As a result, the Le Moustier site is now regarded as presenting three cultural themes, which here mingle: the Levallois, the true Moustierian, and the Acheulean tradition. Afterwards Pérony, Breuil and others have shown these themes in their earlier forms, and terms have been applied to cover these developments.

Forthcoming Events

[Meetings marked with an asterisk are open to the public.]

Sunday, October 13

BRITISH MUSEUM (NATURAL HISTORY), at 3 and 4.30.—Dr. Susan Finnegan: "Spiders".*

Monday, October 14

BRITISH MUSEUM (NATURAL HISTORY), at 11.30.—Capt. Guy Dollman: "Egg-Laying Mammals".*
UNIVERSITY OF LEEDS, at 5.15.—E. O. G. Turville-Petre: "Iceland".*

Tuesday, October 15

UNIVERSITY COLLEGE, LONDON, at 3.—Prof. B. Ashmole: "Greek Sculpture".*
KING'S COLLEGE, LONDON, at 5.30.—A. Ramsay Moon: "Electric Welding as Applied to Structural Work" (succeeding lectures on October 22 and 29).*
GRESHAM COLLEGE, at 6.—A. R. Hinks: "Our Sun's Neighbours" (Gresham Lectures on Astronomy. Succeeding lectures on October 16, 17 and 18).*
BRITISH INSTITUTE OF PHILOSOPHY, at 8.15.—(in University College, Gower Street, W.C.1).—The Right Hon. Sir Herbert Samuel: "New Science and Old Philosophy". (Presidential Address.)

Wednesday, October 16

SOCIETY OF GLASS TECHNOLOGY, at 2.—(at the University of Sheffield). B. P. Dudding: Presidential Address.

Thursday, October 17

BRITISH INSTITUTE OF RADIOLOGY, at 8.—(in the Reid-Knox Hall).—L. A. Rowden: "Looking Backward and Looking Forward" (Presidential Address).
ROYAL SOCIETY OF TROPICAL MEDICINE AND HYGIENE, at 8.15.—Sir Arthur Bagshawe: Presidential Address.

Friday, October 18

ROYAL ASIATIC SOCIETY, at 4.15.—Prof. John Garstang: "Further Discoveries at Jericho".
NORTH EAST COAST INSTITUTION OF ENGINEERS AND SHIPBUILDERS, at 6.—Dr. John T. Batey: Presidential Address.

Official Publications Received

Great Britain and Ireland

Brighton Technical College. Calendar, Session 1935-36. Pp. 119. (Brighton: Technical College.)
British Medical Association. Family Meals and Catering. Pp. 27+3 plates. (London: British Medical Association.) 6d.
Spanish Influence on the Progress of Medical Science: with an Account of the Wellcome Research Institution and the Affiliated Research Laboratories and Museums founded by Sir Henry Wellcome. Commemorating the Tenth International Congress of the History of Medicine, held at Madrid, 1935. Pp. 121. (London: Wellcome Research Institution.)
Transactions of the Royal Society of Edinburgh. Vol. 58, Part 2, No. 19: The Female Reproductive System in the Guinea-Pig; Intra-ovum Staining, Fat Production, Influence of Hormones. By Dr. Thomas Nicol. Pp. 449-486+6 plates. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.) 8s. 6d.