

alcohol. The ratio of ether to alcohol for maximum extraction must fall between narrow limits: the time of contact is also important.—**Jean Roche**: The action of oxygenation on certain physico-chemical properties of the hæmocyane of the snail.—**C. Mathis and C. Durieux**: The identity, at Dakar, of *Spirochæta Duttoni* var. *crociduræ* and the spirochæte naturally infecting *Ornithodoros erraticus*.

VIENNA

Academy of Sciences, Jan. 14.—**Leopold Schmid and Walther Rumpel**: Constitution of the colouring matter in toad-flax flowers (*Linaria vulgaris*). It was found earlier that this colouring matter contains a molecule $C_{17}H_{14}O_6$ united to form a glucoside with one molecule of a hexose and one of a methylpentose. It is now shown that the coloured constituent is the 4:6-dimethyl ether of scutellarein. The flowers contain also entricontane and mannitol.—**Julius Donau**: A new micro-gravimetric analytical process. A combined precipitating and filtering dish with a platinum-foil cover and with platinum black as filtering layer, is described. Dissolution, precipitation, washing, and drying are carried out in the same vessel and losses of precipitate thus entirely avoided. Accurate results have been obtained in the determination of chlorine, iron, sulphate, and potassium chloride.—**Robert Janoschek**: Geology of the Brenner Hills.—**Karl Linsbauer**: Nuclei, nucleoli, and movements of the plasma in the vesicular cells of *Mesembryanthemum cristallinum*.—**Gustav Jantsch and Ernst Wiesenberg**: Higher valency compounds of the rare earths. (1) Lanthanum oxide.—**Martin Gusinde and Viktor Lebzelter**: Somatology of the Indians of Tierra del Fuego. Sixty years ago the three different aboriginal races of Tierra del Fuego numbered together about 12,000 members, but it is estimated that less than 300 of pure descent now remain. The region peopled by each of these races is sharply defined and little mixing occurs. Their modes of life vary, the Yamana and Halakwalup being water-nomads and the Selk'nam hunter-nomads. The results of anthropological measurements of a number of individuals of each tribe are given.—**Otto Sickenberg**: A new antelope, *Parurmiatherium rugosifrons*, nov. gen. nov. spec., from the Lower Pliocene of Samos.

Jan. 21.—Contributions to the knowledge of the climate of towns: (1) **Hanns Tollner**: Distribution of temperature in Vienna in the summer of 1931.—(2) **Friedrich Lauscher and Ferdinand Steinhauser**: Radiation in Vienna and its neighbourhood.—**Fritz Wessely and Editha Nadler**: Substances contained in the root of *Pimpinella saxifraga* (2). In addition to pimpinellin and isopimpinellin, previously described, this root contains also a third compound of the same class, namely, isobergaptene, to the molecule of which a three-ringed structure is ascribed.—**Fritz Wessely and Ferdinand Kallab**: A re-arrangement in the flavone series.—**Leopold Schmid and Anton Seebald**: The colouring matter of the yellow dahlia. This colouring matter comprises, besides apigenin, also a deep yellow compound, $C_{15}H_{10}O_5$, which melts at 324° and contains three hydroxyl groups and a *p*-hydroxybenzoic acid residue in its molecule.—**Karl Morsch**: Action of ammonia and amines on esters of unsaturated acids. (1) Action of ammonia, methylamine, and diethylamine on ethyl crotonate.—**Franz Fuhrmann**: Biochemistry of the luminous bacteria. (1) Influence of sodium and potassium chlorides and bromides.—**Karl Strubecker**: Rhombic nets of straight lines and circles.—**Alfred Tarski**: Concept of truth in the language of the deductive sciences.

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Forthcoming Events

FRIDAY, MAY 6

- IRON AND STEEL INSTITUTE (at Institution of Civil Engineers), at 10 A.M.—Annual Meeting.
 ROYAL SOCIETY OF MEDICINE (Otolaryngology Section) (Annual General Meeting), at 10.30 A.M.—Discussion on Labyrinthitis.
 CAMBRIDGE UNIVERSITY (in Senate House), at noon.—Prof. A. Einstein: Die Theorie der Elektrizität im Rahmen der allgemeinen Relativitätstheorie (Rouse Ball Lecture).
 INSTITUTION OF MECHANICAL ENGINEERS (London Spring Meeting), at 2.30.—A. Binns: Recent Developments in the Mechanical Equipment of the Port of London Authority.—At 7.30.—J. H. Boyd: The Building of a Modern Motor-car Manufacturing Plant.
 ROYAL SOCIETY OF ARTS (Indian Meeting), at 4.30.—Miss B. M. le P. Power: Indian Labour Conditions.
 ROYAL SOCIETY OF MEDICINE (Laryngology Section), at 5.—Annual General Meeting.
 PHYSICAL SOCIETY (in Physiological Laboratory, University College), at 5.—Prof. A. V. Hill: The Measurement and Analysis of the Heat Production of Nerve (Lecture).
 UNIVERSITY COLLEGE, at 5.30.—Sir Bernard Pares: Russia and the West (Lecture).
 GOLDSMITHS' COLLEGE (New Cross), at 5.45.—Prof. J. F. Unstead: Recent Developments of the Regional Method—as applied to Teaching.
 ROYAL INSTITUTION OF GREAT BRITAIN, at 8.30.—Conversazione.
 ROYAL SOCIETY OF MEDICINE (Anæsthetics Section), at 8.30.—Annual General Meeting.
 CAMBRIDGE UNIVERSITY (in Anatomy Lecture Room, New Museum).—Prof. J. J. R. Macleod: Linaere Lecture.

SATURDAY, MAY 7

- GOLDSMITHS' COLLEGE (New Cross), at 3.30.—Prof. H. J. Fleure: Social and National Ideals in their Geographical Settings—A Study of Some European Problems.

MONDAY, MAY 9

- UNIVERSITY COLLEGE, at 2.—Dr. W. W. Greg: The Descent of Manuscripts (Lecture).
 ROYAL INSTITUTION OF GREAT BRITAIN, at 5.—General Meeting.
 INSTITUTION OF ELECTRICAL ENGINEERS (London Students' Section), at 6.15.—Annual General Meeting.
 BRITISH ASSOCIATION OF CHEMISTS (Notts and Derby Section) (Annual Meeting) (at King's Café, Derby), at 7.15.—A. W. Knapp and others: Discussion on the Organisation of the Profession.
 MEDICAL SOCIETY OF LONDON (Annual General Meeting) (at 11 Chandos Street, W.1), at 8.—At 8.30.—Sir James Berry: Fallen Idols (Annual Oration).

TUESDAY, MAY 10

- ROYAL HORTICULTURAL SOCIETY (Greycoat Street, S.W.1), at 3.30.—Sir Frederick Keeble: Garden Fertility (Masters Memorial Lectures) (1).
 ROYAL SOCIETY OF MEDICINE (Therapeutics and Pharmacology Section) (Annual General Meeting), at 5.—Discussion on Some Problems concerning the Prevention and Treatment of Acute Rheumatic Infection.
 INSTITUTION OF CIVIL ENGINEERS, at 6.—Annual General Meeting.
 BRITISH ASSOCIATION OF CHEMISTS (Birmingham Section) (at Chamber of Commerce, Birmingham), at 7.30.—Annual Meeting.
 (NEW) INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS (British Branch) (at Institution of Mechanical Engineers), at 7.30.—Dr. W. Rosenhain: The Work and Objects of the Association.
 ROYAL SOCIETY OF MEDICINE (Psychiatry Section), at 8.30.—Annual General Meeting.
 ROYAL INSTITUTE OF PUBLIC HEALTH (at Belfast) (continued on May 11 to 15).

WEDNESDAY, MAY 11

- ROYAL HORTICULTURAL SOCIETY (Greycoat Street, S.W.1), at 3.30.—Sir Frederick Keeble: Garden Fertility: its Origin and Maintenance (Masters Memorial Lectures) (2).
- ROYAL SOCIETY OF MEDICINE (Surgery: Sub-Section of Proctology), at 5.—Annual General Meeting.
- NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY (at London School of Economics), at 5.30.—Dr. C. S. Myers: Psychological and Social Factors in Business Rationalisation (2): The Dangers of Rationalisation.
- SCHOOL OF ORIENTAL STUDIES, at 5.30.—Dr. Pran Nath: Indus Inscriptions.
- INSTITUTION OF ELECTRICAL ENGINEERS (Tees-Side Sub-Centre) (Annual General Meeting) (at Cleveland Technical Institute, Middlesbrough), at 7.—E. H. E. Woodward and W. A. Carne: An Analysis of the Costs of Electricity Supply and its Application in Relation to Various Types of Consumers.
- INSTITUTE OF METALS (at Institution of Mechanical Engineers), at 8.—Prof. F. Körber: The Plastic Deformation of Metals (Annual May Lecture).

THURSDAY, MAY 12

- UNIVERSITY COLLEGE, at 5.30.—Prof. W. R. Hess: The Autonomic Nervous System (1). (*Succeeding Lecture on May 13.*)
- IRON AND STEEL INSTITUTE (Additional Meeting) (jointly with Staffordshire Iron and Steel Institute) (at Chamber of Commerce, Birmingham), at 6.30.—Presentation of Papers.
- OIL AND COLOUR CHEMISTS' ASSOCIATION (London Section) (Annual General Meeting) (at 30 Russell Square, W.C.1), at 7.30.—S. K. Thornley: Development of Government Intervention and its Effect on our Industry.
- OPTICAL SOCIETY (at Imperial College of Science and Technology), at 7.30.—Annual General Meeting, followed by Ordinary Meeting.

FRIDAY, MAY 13

- ROYAL ANTHROPOLOGICAL INSTITUTE (Sociological Research Committee), at 5.30.—J. H. Driberg: Economic Stages of Development in Africa.
- BRITISH ASSOCIATION OF CHEMISTS (London Section) (at Broad Street Station Restaurant, E.C.), at 7.—Annual General Meeting.
- INSTITUTION OF ELECTRICAL ENGINEERS (Scottish Centre) (at Cowdry Hall, Aberdeen), at 7.30.—Prof. J. K. Catterson-Smith: Everyday Uses of Electricity (Faraday Lecture).
- ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Sir John C. W. Reith: Broadcasting.
- INTERNATIONAL COMMITTEE ON THE HISTORY OF SCIENCE (at Paris) (*continued on May 14 to 16.*)

SATURDAY, MAY 14

- ASSOCIATION OF TEACHERS IN TECHNICAL INSTITUTIONS (Annual Conference) (at Technical College, Cardiff) (*continued on May 15 to 17.*)

Official Publications Received

BRITISH

- Transactions and Proceedings of the Perthshire Society of Natural Science. Vol. 9, Part 2, 1930-31. Pp. 55-68+xv-xxx+plates 12-17. (Perth.) 3s. 6d.
- The Hastings and East Sussex Naturalist: the Journal of the Hastings and St. Leonards Natural History Society. Edited by Anthony Beit. Vol. 4, No. 5, 31st March. Pp. 93-120. (St. Leonards.) 2s.
- The University of Sheffield. Report on Research Work carried out in the Departments of Mining and Fuel Technology during the Session 1930-31. Pp. 18. (Sheffield.)
- Royal Botanic Gardens, Kew. Bulletin of Miscellaneous Information. Appendix 1, 1932: Review of the Work of the Royal Botanic Gardens, Kew, during 1931. Pp. 54. (London: H.M. Stationery Office.) 1s. 4d. net.
- The Ninety-eighth Annual Report of the Royal Cornwall Polytechnic Society. New Series, Vol. 7, Part 1, 1931. Pp. xii+106+16+5 plates. (Camborne.) 5s.
- Air Ministry: Aeronautical Research Committee: Reports and Memoranda. No. 1418 (Ae. 534—T. 2986): Wind Tunnel Experiments on the Cowling of Air Cooled Engines. By W. G. A. Perring. Pp. 49+21 plates. 2s. 6d. net. No. 1438 (T. 3146): Wind Tunnel Experiments on High Tip Speed Airscrews. By A. S. Hartshorn and Dr. G. P. Douglas. Pp. 12+8 plates. 9d. net. (London: H.M. Stationery Office.)

Oxford Bibliographical Society. Proceedings and Papers, Vol. 3, Part 1, 1931: A Bibliography of the Honourable Robert Boyle, Fellow of the Royal Society. By J. F. Fulton. Pp. 172. (Oxford.) 10s.

Department of Scientific and Industrial Research: Forest Products Research. Leaflet No. 5: Empire Timbers from Home and Overseas for Building and Structural Purposes—Timbers and the Uses for which they are considered as generally Suitable. By Major J. R. Cosgrove. Pp. ii+24. (London: H.M. Stationery Office.) 1s. 3d. net.

Transactions of the Institution of Electrical Engineers. Edited by P. F. Rowell. Vol. 70, No. 424, April. Pp. 393-476+xx. (London: E. and F. N. Spon, Ltd.) 10s. 6d.

Abstracts of Dissertations approved for the Ph.D., M.Sc. and M.Litt. Degrees in the University of Cambridge for the Academic Year 1930-1931. Pp. 101. (Cambridge: Printed at the University Press.)

Publications of the Dominion Observatory, Ottawa. Vol. 10: Bibliography of Seismology. No. 12: October, November, December 1931. By Ernest A. Hodgson. Pp. 193-210. (Ottawa: F. A. Acland.) 25 cents.

Union of South Africa: Department of Agriculture. Science Bulletin No. 102: Oils from South African Eucalypts. By Dr. E. J. de Villiers and C. P. Naude. (Division of Chemistry Series No. 117.) Pp. 20. (Pretoria: Government Printing Office.) 6d.

Transactions of the Geological Society of South Africa. Vol. 34: January to December 1931. Pp. iv+167+7 plates. 42s. Proceedings of the Geological Society of South Africa: containing the Minutes of Meetings and the Discussions on Papers read during 1931. To accompany Vol. 34 of the Transactions, January-December 1931. Pp. iii+lii. (Johannesburg.)

The Ross Institute and Hospital for Tropical Diseases, Putney Heath, London, S.W.15. Annual Report and Accounts for 1931. Pp. 72. (London.)

N.Z. Department of Scientific and Industrial Research. Bulletin No. 32: Bush Sickness; Investigations concerning the Occurrence and Cause of Bush Sickness in New Zealand. Pp. 62. (Wellington, N.Z.: W. A. G. Skinner.) 2s. 9d.

Proceedings of the Society for Psychical Research. Part 123, Vol. 40 April. Pp. 165-362. (London.) 10s.

The Hannah Dairy Research Institute. Report for the Two Years ending 31st March 1932. Pp. 16+4 plates. (Auchincruive.)

Imperial Bureau of Plant Genetics: Herbage Plants. Bulletin No. 6: Research on Forage Crops in Soviet Central Asia, with special reference to Turkestan Lucerna. Pp. 32. (Aberystwyth.) 1s. 6d.

Air Ministry: Aeronautical Research Committee: Reports and Memoranda. No. 1418 (T. 3187): Addition of Rolling Moments due to Roll and Sideslip. By H. B. Irving. Pp. 3+3 plates. (London: H.M. Stationery Office.) 4d. net.

FOREIGN

Geological Survey of China. Palaeontologia Sinica. Series C, Vol. 7, Fascicle 2: Mammalian Remains from Locality 5 at Choukoutien. By W. C. Pei. Pp. 20+1 plate. Series C, Vol. 9, Fascicle 1: Fossil Mammals from the late Cenozoic of Northern China. By P. Teilhard de Chardin and C. C. Young. Pp. v+93+10 plates. (Peiping: French Bookstore; London: Edward Goldston.)

Ministry of Agriculture: Technical and Scientific Service. Bulletin No. 116: On the Principal Types of Piropiasm observed in Bovines in Egypt. By Prof. Dr. M. Carpano. Translated from the Italian by E. Talarewitch. Pp. 30+7 plates. (Cairo: Government Press.) 10 P.T.

Journal of Science of the Hiroshima University. Series A (Mathematics, Physics, Chemistry). Vol. 1, No. 3, October 1931. Pp. 159-228. 83 sen. Vol. 2, No. 1, February. Pp. 102. 1.20 yen. (Tokyo: Maruzen Co., Ltd.)

U.S. Department of Agriculture: Bureau of Biological Survey. North American Fauna, No. 50: Mammals of New Mexico. By Vernon Bailey. Pp. 412+22 plates. (Washington, D.C.: Government Printing Office.) 1 dollar.

Jahresbericht der Hamburger Sternwarte in Bergedorf für das Jahr 1931. Erstattet von dem Direktor Dr. R. Schorr. Pp. 22. (Bergedorf.)

Proceedings of the American Academy of Arts and Sciences. Vol. 67, No. 3: Sources of American Discontent. By H. Addington Bruce. Pp. 43+60. 45 cents. Vol. 67, No. 4: Postulates for Separation of Point-Pairs (Reversible Order on a Closed Line). By Edward V. Huntington and Kurt E. Rosinger. Pp. 61-146. 1.45 dollars. (Boston, Mass.)

Agricultural Experiment Station: Michigan State College of Agriculture and Applied Science. Circular Bulletin No. 140: Home Production of the Family's Food Supply. Pp. 32. Special Bulletin No. 215: Successful Farm Practices in the Upper Peninsula. By G. W. Putnam. Pp. 69. Special Bulletin No. 217: Marketing Michigan Beans. By Wilbur O. Hedrick. Pp. 85. Special Bulletin No. 218: Spray Injury Studies. 1: Injuries from Summer Applications on Apples. By W. C. Dutton. Pp. 68+16 plates. Special Bulletin No. 219: Spray Injury Studies. 2: Secondary Effects of Spray Injury to Apple Foliage. By W. C. Dutton. Pp. 38. Technical Bulletin No. 118: Investigations in the Mosaic Disease of Bean (*Phaseolus vulgaris* L.). By Ray Nelson. Pp. 71+11 plates. (East Lansing, Mich.)

U.S. Department of Commerce: Bureau of Standards. Bureau of Standards Journal of Research. Vol. 8, No. 2, February, Research Papers Nos. 407-415. Pp. 159-320. (Washington, D.C.: Government Printing Office.) 40 cents.

U.S. Department of the Interior: Geological Survey. Bulletin 831-A: The Jackson Gas Field, Hinds and Rankin Counties, Mississippi. By Watson H. Monroe. Pp. 11+17+2 plates. 10 cents. Water-Supply Paper 694: Surface Water Supply of the United States, 1929. Part 12: North Pacific Slope Drainage Basins. C: Pacific Slope Basins in Oregon and Lower Columbia River Basin. Pp. vi+154. 25 cents. Water-Supply Paper 704: Surface Water Supply of the United States, 1930. Part 9: Colorado River Basin. Pp. v+117. 20 cents. (Washington, D.C.: Government Printing Office.)

U.S. Department of Agriculture. Circular No. 50: Proximate Composition of Fresh Fruits. By Charlotte Chatfield and Laura I. McLaughlin. Revised edition. Pp. 20. 5 cents. Circular No. 146: Proximate Composition of Fresh Vegetables. By Charlotte Chatfield and Georgian Adams. Pp. 24. 5 cents. Circular No. 205: The Iron Content of Vegetables and Fruits. By Hazel K. Stiebeling. Pp. 20. 5 cents. (Washington, D.C.: Government Printing Office.)