

University Events

CAMBRIDGE.—D. H. Barron has been appointed University lecturer in the Department of Anatomy.

In a report of the Buildings Syndicate, it is recommended that the plans for a new School of Anatomy prepared by Mr. J. Murray Easton be approved, and that the Financial Board be authorized to accept a tender.

The degree of M.A. has been conferred on J. S. Baxter, D. V. Davies, M. T. Greig and W. R. M. Morton, University demonstrators in anatomy.

W. T. Astbury, lecturer in textile physics in the University of Leeds, has been approved for the degree of Sc.D.

The Sedgwick Prize offered every third year for the best essay on some subject in geology or kindred sciences and valued at about £90 has been divided equally between Dr. E. C. Bullard of Clare College and Dr. F. C. Phillips of Corpus Christi College.

Dr. J. Gray, University reader in experimental zoology, fellow of King's College, has been elected, as from October 1, 1937, to the professorship of zoology vacant owing to the retirement of Prof. J. Stanley Gardiner.

OXFORD.—Sir Arthur Salter (Independent) has been elected an M.P. for the University in succession to Lord Hugh Cecil, who resigned on his appointment as Provost of Eton. Sir Arthur, who is professor of political theory and institutions in the University, has been a member of the Economic Advisory Council since 1932.

In Convocation on February 27, the honorary degree of D.Sc. was conferred upon Prof. The Svedberg, director of the Physical Chemical Institute at Uppsala.

H. W. Thompson, St. John's College, has been appointed University demonstrator in chemistry for two years as from October 1, 1937.

Prof. N. V. Sidgwick has been re-appointed University reader in chemistry.

The following have been reappointed for four or five years as from October 1, 1937, as University demonstrators in their subjects: Dr. R. S. Creed and Dr. C. G. Douglas (physiology), T. C. Keeley (physics), Dr. R. L. Vollum (pathology), E. Whitley (biochemistry) and J. Z. Young (zoology).

including two colour-blind brothers only one of whom is hæmophilic. This fact is attributed to crossing-over. A function $P(x, p)$ of the frequency x of crossing-over, and the frequency p of colour-blindness in the male population, is calculated, which represents the probability of the observed association. The probability that the association attributed to linkage is due to sampling is less than 4×10^{-6} . The frequency of crossing-over is as likely to be above as below 5 per cent. Further confirmation has been obtained for the view that hæmophilia originates by mutation.

D. E. LEA, R. B. HAINES and C. A. COULSON: The action of gamma rays on growing and on non-proliferating bacteria. Experiments are described on the lethal action of gamma radiations upon aqueous suspensions of *B. coli* and spores of *B. mesentericus*. Exponential survival curves are obtained, the mean lethal ionization dosages being approximately equal to those previously obtained for beta rays under conditions in which the rate of death was very much greater. Experiments upon *B. coli* in nutrient media are also described which suggest that the lethal action of the radiation proceeds independently of growth in the medium. Under certain conditions, abnormal *B. coli* in the form of long filaments have been obtained. A quantitative analysis of the results of viable counts, total counts, and length distribution measurements leads to the conclusion that the production of long forms is due to division being inhibited, while growth, in the sense of increase of volume, is unaffected.

Dublin

Royal Irish Academy, February 8.

L. B. SMYTH: Some observations on *Lophophyllum cyathophyllioides* Vaughan. This carboniferous coral was described by Vaughan under the generic name *Lithostrotion*. It is here transferred to *Lophophyllum*, and shown to be very variable. A young stage is described. The type is in Dublin.

J. SELWYN TURNER: The faunal succession in the carboniferous limestone near Cork. Lower Carboniferous zones from *Z* to *D*₁, inclusive, are identified in the limestone facies east of Cork city, and their fauna discussed, as a preliminary to a study of the Culm facies immediately to the west. At Little Island, the succession is best exposed, but observations were also made at Blackrock and Midleton.

Paris

Academy of Sciences, February 1 (*C.R.*, 204, 305-383).

EMILE BOREL: An elementary problem of strategy.

MAURICE GIGNOUX and FRANCK BOURDIER: The history of the ancient Rhone glacier at its exit from the Geneva basin.

CHARLES PISOT: The modulo 1 distribution of successive powers of the same number.

ROBERT FORTET: Probabilities in chains.

DANIEL DUGUÉ: An extension of the law of large numbers.

PAUL DELENS: Studies on the tetrahedron.

SERGE FINIKOFF: Series of Laplace for which the index surfaces of the same parity have their asymptotics in correspondence.

ANTOINE APPERT: The relations between Linfield spaces and complexes.

GEORGES KUREPA: The problem of Souslin and abstract spaces.

Societies and Academies

London

Royal Society, February 25.

JULIA BELL and J. B. S. HALDANE: The linkage between the genes for colour-blindness and hæmophilia in man. Colour-blindness and hæmophilia are known to be sex-linked. The genes responsible for them should therefore be carried in the same chromosome, and exhibit partial linkage with one another. Six pedigrees are described in which both conditions are found. In three of these, the genes are located in the same chromosome, and are associated throughout the pedigree, all hæmophilics investigated being also colour-blind, and none of their non-hæmophilic brothers being colour-blind. In two pedigrees, the opposite condition holds, whilst one is doubtful,

I. PRIVALOFF : The general theory of polyharmonic functions.

LÉOPOLD ESCANDE and GEORGES SABATHÉ : Researches on hydrometric velocity meters. Study of the errors introduced by the usual method of calibration.

KENTARO YANO : The unitary theory of fields proposed by M. Vranceanu.

EMILE SEVIN : Novæ and white dwarfs.

RAYMOND GRANDMONTAGNE : The photo-electric study of the colour of the night sky. Application of a recording photo-electric photometer, fitted with colour screens, to the study of the variations of brightness of the night sky. The distribution of energy differs from that of a black body, and shows a high proportion of red.

MME. IRÈNE MIHUL and CONSTANTIN MIHUL : The propagation of radio-electric signals between two points at a distance from each other.

AUGUSTIN BOUTARIC, LOUIS FERRÉ and MME. MADELEINE ROY : Spectro-photometric researches on the dilution and mixture of wines.

SALOMON ROSENBLUM and MARCEL GUILLOT : The possibility of the existence of equidistant energy levels in the nuclei of radioactive bodies.

P. CARRÉ and H. PASSEDOUET : The influence of the terminal group on the melting point of normal chain fatty compounds.

JULES BRÜLL : The influence of electrolytes on the hydration of some complex cobaltic compounds.

MAURICE CURIE : Phosphorescent glasses. The influence of crystallization. Experiments are described proving clearly the influence of crystallization on the duration of phosphorescence. Ordinary glass and zinc borate were used, the latter with additions of small proportions of manganese, lead, bismuth, samarium and uranium.

JEAN SAVARD, MARC DE HEMPTINNE and PAUL CAPRON : The ionization potential of carbon monoxide. The number of critical points was so numerous that doubts arose as to the apparatus used ; but a repetition of the work, with tantalum replacing copper, proved the correctness of the first experiments. The ionization potential of the molecule CO is given as 13.5 eV.

ARAKEL TCHAKIRIAN : The germaniooxalates and zirconiooxalates of quinine and strychnine.

JOSEPH HOCH : The action of organomagnesium compounds on the trialkylacetophenone oxims.

PAUL CHOVIN : Researches on the Pechmann colouring matters. A method of synthesis allowing the preparation of colouring matters with unequal substituents.

RAYMOND PAUL : The action of Raney nickel on some aldoxims.

GEORGES DANTLO : The esterification of Congo copal in the oil varnish industry.

JEAN CUVILLIER : Discovery of the nummulitic in the island of Shadwan (Red Sea).

RENÉ PERRIN : Metamorphism and folding.

LUCIEN PLANTEFOL : The respiratory oxidations : intrinsic and extrinsic oxidations.

MAURICE LANGERON : Statistical and mycological observations on human scald-head in Morocco.

J. RISBEC : The crystal sac of *Nerita*.

LOUIS FAGE : The apneumonic spiders.

CONSTANTIN DAWYDOFF : Some observations on the embryonic development of the madrepores.

ARTHUR BRUNEL : A new enzyme, allantoicase. Its presence in the animal kingdom. This enzyme is capable of splitting allantoic acid into two molecules

of urea and one molecule of glyoxylic acid. Originally isolated in *Sterigmatocystis*, it is now shown to be present in the liver of *Raja punctata* and in the liver of frogs.

MAURICE DOLADILHE : The relations between alexine and the viscous protein of serum.

Moscow

Academy of Sciences (C.R., 4, No. 6 ; 1936).

S. SOBOLEFF : The algorithm of Schwarz in the theory of elasticity.

N. KOŠLIKOFF : Some infinite integrals.

B. SEGAL : Generalized Waring's problem in connexion with the estimation of trigonometrical sums.

G. FICHTENHOLZ : Contribution to the theory of linear functions.

M. P. ŽELDAK : Influence of cutting on the distribution of the first order strains in a cylinder.

P. M. MURZAJEV : Sericitization of pegmatites of the Gdov district, Leningrad region, and its genesis.

A. G. EBERZIN : Miocene of south-east Transcaucasia.

G. G. MARTINSON : Distribution of sponge spiculæ in a bore hole of deep borings near the village Possolsk on the Baikal Sea.

G. LAEMMLEIN : Twisted quartz.

A. E. KRISS : Anthocyanin in *Aetnomycetes*.

V. VASNECOV : The caudal keels of fishes.

Vienna

Academy of Sciences, November 12.

ERNST CHWALLA : A new type of solution in the theory of stability. The case of a symmetrically loaded rectangular framework having two joints is considered.

OTTO BENNDORF : Anthracene-1, 2-dicarboxylic acid anhydride.

November 19.

JOVAN JURIŠIĆ : (1) Germination and morphology of the seeds of *Bryophyllum*. (2) Physiology of germination of Gesneriaceæ. Some species of Gesneriaceæ will germinate in the dark, provided the temperature lies within a certain range, while others will not germinate in any circumstances in the dark.

RUDOLF WAGNER : Existence of typical non-bracteolate blossoms of Rubiaceæ.

HERBERT SCHÖBER and HEINRICH ANGENETTER : Spark spectrum of radium emanation.

LOTHAR KOSCHMIEDER : Operational calculus with two variables, and the bilinear form of the Laguerre polynomial.

FRANZ E. SUESS : Periplutonic and enorogenic regional metamorphosis. Regional metamorphs are divided into two classes according to whether the diffusion of material is brought about by temperature gradients or by tectonic displacements.

JULIUS PIA : Principal data from a stratigraphical study of the Prague Dolomites (south Tyrol).

KARL STRUBECKER : Circular quadratic complexes.

M. PESTEMER and G. SCHMIDT : A new polarization photometer for the visual determination of differences of blackness, and its application to photographic spectrophotometry.