

## Educational Topics and Events

ABERDEEN.—The King has been pleased, on the recommendation of the Secretary of State for Scotland, to approve the appointment of Prof. E. W. Henderson Cruickshank, professor of physiology in Dalhousie University, Halifax, Nova Scotia, to be regius professor of physiology in the University of Aberdeen, in succession to the late Prof. J. J. R. Macleod.

FOR London school-teachers, the London County Council offers an extensive and attractive programme of winter evening lectures and classes designed to bring them into touch with the latest developments in educational methods and to give them opportunities of hearing leading authorities in various branches of learning and on current questions of public importance. A glance through the recently issued handbook for the session 1935–36, giving full particulars of nearly a hundred items, leaves the impression that this scheme, which is self-supporting and obtained last year 13,000 entries, cannot fail to raise the standard of liveliness of school teaching in the metropolis. Of the courses grouped under the heading Science, nearly all deal wholly or in part with the science of life. They include a Saturday morning series at the Zoological Gardens on “Animals at the Zoo”, lecture-demonstrations at the London School of Hygiene on “Fundamentals of Biology”, a series on the conduct in the school of observations and experiments on plant and animal life, lectures on food and food values, on the teaching of hygiene and on science for senior schools. The last-mentioned course will direct attention to the desirability of framing science syllabuses on a wider basis than that traditionally employed, and will include an exposition of schemes of work which have been found suitable for senior children of both sexes in a London school.

SECONDARY schooling for all is an ideal towards the realisation of which the United States has made notable advances. That the ideal is a mischievous one, and that advances towards it have had devastating results, is the gist of a lively diatribe by one of the staff of a Pennsylvanian High School published in *School and Society* of April 13. The public school is declared to have become, to a large extent, a “racket”. A large proportion of the students who are promoted willy-nilly into the secondary schools will not and cannot profit by further schooling in any form. This is the opinion not only of teachers of academic subjects but also, emphatically, of shop teachers, whose energies are largely devoted to making the best of the subnormal pupils for whose benefit money is lavished on special apparatus, special textbooks and individually supervised study. If the material is thus unpromising, the quality of the staff available for processing it suffers from the dominance of the doctrinaire in the direction of the teacher training institutions. Here students are being compelled to spend so much of their time learning how to teach that they have little left for mastering the subject matter they are to handle. They are bewildered by the multitude of their courses, many of them obscured with metaphysical subtleties; and they are practically obliged to accumulate further ‘credits’ by attending vacation courses remote from utilitarian or cultural values.

## Science News a Century Ago

### *London and Edinburgh Philosophical Journal*

THE contents of the October, 1835, number of the *London and Edinburgh Philosophical Journal* consisted mainly of reprints of papers read before various societies. These included one by Sir David Brewster on the structure and origin of the diamond, one by Apjohn on a formula for inferring the dew-point from the indications of the wet-bulb hygrometer, a part of C. B. Rose’s sketch of the geology of West Norfolk and a paper by Encke on Olber’s method of determining the orbits of comets. There was an original communication from C. L. C. Rumker (1788–1862), the director of Hamburg observatory who had served in the British Navy, to Sir Thomas Brisbane on a new method of reducing lunar observations for the determination of the longitude. The number, however, was of more than special interest as it included the first of a series of official reports communicated by the Council and Secretaries of the British Association on the Dublin meeting.

### The Entomological Society

AT a meeting of the Entomological Society, held on October 5, 1835, “Various donations of entomological works were announced, including the first number of the splendid ‘Fauna Japonica’ by Drs. Siebold and De Haan, presented by the authors. Various new members were elected, including Count De Jean and M. Boisduval, of Paris. A communication was received from Mr. E. Doubleday, containing an account of the total destruction of a beehive by a small moth, *Galleria cereana*, the larvæ of which had completely devoured the comb—portions of which were exhibited. Several living cane plants, greatly infested by the cane fly, were exhibited by Mr. J. C. Johnstone, by whom an account was given of the rapid and alarming progress of this minute insect, its ravages extending over two-thirds of the island of Grenada, to so great an extent that plantations which originally made 300 hogsheads did not now make more than eighty or ninety. . . .” (*Athenæum*.)

### Sir Charles Bell at the Middlesex Hospital

ON October 7, 1835, Sir Charles Bell wrote to his brother George, “I don’t think I have written to you since I began the lectures, establishing a school in the old Middlesex. At least my spirit and devotion to the art and to the institution to which I am attached will not be denied. I have delivered six lectures, such as only long experience and study could have produced. I lecture to some sixty pupils—which for a beginning is as much as we could expect. N.B.—I have received not one guinea from these lectures and expect none. On the contrary I have subscribed £50 as one of the hospital surgeons, £30 as a lecturer. Nevertheless, the main object will be gained—the preserving the hospital respectable. . . . I now return to the cheap and complete edition of my ‘Nervous System’.”

### The Tortoises of the Galapagos Archipelago

ON October 8, 1835, Darwin records: “We arrived at James Island; this island as well as Charles Island, were long since thus named after our kings of the Stuart line. Mr. Bynoe, myself, and our servants were left here for a week, with provisions and a tent,

whilst the *Beagle* went for water. We found here a party of Spaniards, who had been sent from Charles Island to dry fish and to salt tortoise-meat. About six miles inland, and at the height of nearly 2,000 feet, a hovel had been built in which two men lived who were employed in catching tortoises, whilst the others were fishing on the coast. I paid this party two visits and slept there one night. . . . While staying in the upper region we lived entirely on tortoise-meat: the breastplate roasted (as the Gauchos do *carne con cuero*), with the flesh on it, is very good; and the young tortoises make excellent soup; but otherwise the meat to my taste is indifferent."

## Societies and Academies

### PARIS

Academy of Sciences, August 12 (*C.R.*, 201, 413-436). The President announced the death of Antoine Guntz, *Correspondant* for the Section of Chemistry. HANS SCHWERDTFEGGER: Functions of matrices. BORIS KAUFMANN: The infinitesimal properties of closed ensembles of arbitrary dimension. RICHARD BRAUER: The integral invariants of varieties representative of simple closed Lie groups. GEORGES BOURION: The limit functions of the partial sums of an integral series at the frontier of the circle of convergence. MARCUS BRUTZCUS: The appreciation, *a priori*, of the value of a commercial combustible for motors. RENE DUBRISAY: The action of sulphur on silver. The blackening of silver can be produced by sulphur without the intervention of a sulphur compound. The increase in the rapidity of the action caused by a high vacuum may be partly due to the increased rate of diffusion of the sulphur vapour, and partly to the removal of a layer of protective gases on the silver. JEAN CALVET, JEAN J. TRILLAT and MILOSLAV PAIČ: The recrystallisation of pure aluminium. Application of the X-ray method to the study of the velocity of crystallisation of aluminium containing 99.9986 per cent of the metal. At 0° C., slight traces of crystallisation appear after 12 hours, and this is still incomplete after 336 hours. At 100° C., recrystallisation is complete after one minute, and at higher temperatures is practically instantaneous. CHARLES DUFRAISSE and MARCEL GÉRARD: Dissociable organic oxides and the anthracene structure. The existence of a photo-oxide of anthracene: its thermal decomposition. According to the theory developed from the study of the rubenes, anthracene should absorb oxygen rapidly under the action of light, forming a compound decomposing on heating but without emitting oxygen. The results of experiments with anthracene are given, fully confirming these views. RENE SALGUES: Erythrocytes, hæmoglobin and the globular value in the course of cancerous affections in birds. LEON VELLUZ: The comparative action of the bile acids on the tetanus and diphtheria toxins: the special properties of lithocholic acid. For the same polycyclic structure, the neutralisation of the diphtheria toxin depends on the number of alcohol groups, whilst this substitution is without influence on the neutralisation of the tetanus toxin. Lithocholic acid is the most energetic agent known as regards neutralisation of the toxin of diphtheria. RAYMOND-HAMET: The non-modification of the sympathicolytic activity of yohimbine by the introduction of a double bond in the molecule of this alkaloid.

August 19 (*C.R.*, 201, 437-460). LOUIS BLARINGHEM: The fertility of *Hemerocallis flava* and of its hybrid (*H. flava* × *H. fulva*). HARALD CRAMER: The asymptotic properties of a class of chance variables. G. POLYA: Integral series satisfying an algebraic differential equation. PIERRE LEJAY and TSAN HUNG CHI: Gravity map of the south-west of China. REZA RADMANECHE: Influence of temperature on the electrical conductivity of quartz. PHILIPPE WAGUET: Light emission of mercury arcs under high pressure. From measurements with a photoelectric cell of the light intensities of a mercury arc at varying incidences it is concluded that the colour of the mercury arc varies according to the direction from which it is observed. This complicates the problem of heterochrome photometry when the mercury arc is used as a light source. GEORGES FLUSIN and CHRISTIAN AALL: The study of the system calcium carbide, calcium oxide. G. DEDEBANT, PH. SCHERESCHEWSKY and PH. WEHRLÉ: The theory of the general circulation of the atmosphere. The law of the rotation and the field of pressure. FERNAND ARLOING, ALBERT MOREL and ANDRÉ JOSSEMAND: The action on tumours, in intravenous injections, of soluble chemical products in which iron is associated with vitamin C (ascorbic acid).

### LENINGRAD

Academy of Sciences (*C.R.*, 2, No. 9, 1935). L. G. MAGNARADZE: The problem of the elastic oscillation of the semiplane. G. M. BAVLI: A generalisation of the boundary problem of Poisson. N. A. SLIOSKIN: Discontinued two-dimensional movement of an ideal gas round a curved obstacle. N. A. DOBROTIN: Distribution in angle of protons projected by neutrons. M. DIVILKOVSKIY and M. FILIPPOV: Measurement of the intensity of magnetic fields of very high frequency. W. FREDERICKS and V. ZVETKOV: Orientating action of an electric field on the molecules of anisotropic fluids. M. P. VOLAROVITCH and A. A. LEONTJEVA: (1) Determination of the specific volume of molten diabase at high temperatures. (2) Determinations of the specific volume of molten salts at high temperatures. P. P. PORFIROV: Determination of the capacity of a polarised mercury electrode. N. P. SMIRNOV: The stimulus to precipitation. N. N. VOROZHOV, Jun. and A. T. TROSHENKO: Morphine content in the latex of *Papaver somniferum*. A. E. FERSMAN: The *ek* system (see *NATURE* of August 31, p. 349). S. N. SIMAKOV, N. A. SCHWEMBERGER and O. S. VJALOV: Silurian naphtha in central Asia. N. A. SCHWEMBERGER: Contribution to the problem of the silurian naphtha in Central Asia. M. N. IVANTISHIN: Contribution to the problem of the geochemical zonation in the distribution of metallic elements on the territory of the Far Eastern region. A. G. EBERZIN: The Tchauda layers in the Taman peninsula. O. NIKIFOROVA: The Upper Silurian of Podolia. S. F. CEREVITINOV and L. V. METLICKIJ: Effect of an electric field of high frequency on the keeping qualities of fruit and vegetables. A. V. POPCOV: Note on secondary dormancy of *Taraxacum megalorhizon* seeds. T. S. RASS: Some regularities in the structure of eggs and larvæ of fishes in northern seas.

(*C.R.*, 3, No. 1, 1935). I. M. VINOGRADOV: Some rational approximations. I. D. ADO: Representation of Lieschen groups by linear substitution. S. TCHUNIKHIN: A generalisation of the theorems