

## Educational Topics and Events

CAMBRIDGE.—The King has been pleased to approve the appointment of Dr. John Alfred Ryle to be regius professor of physic in the University in succession to Sir Walter Langdon Brown, who retires on September 30.

LIVERPOOL.—Dr. Hubert Horace Stones has been appointed Louis Cohen professor of dental surgery and director of dental education, from October 1 next, in succession to Prof. W. H. Gilmour, who retires at the end of the present session. Dr. Stones is an honorary dental surgeon to University College Hospital Dental School, London, and a research worker at the Hale Research Laboratory of the Royal Dental Hospital of London.

PROF. T. GRIFFITH TAYLOR, professor of geography in the University of Chicago, has been appointed professor of geography in the University of Toronto. This is the first independent chair of geography to be established in Canada. Dr. Taylor was associate professor of geography in the University of Sydney in 1920–28. He was senior geologist in Capt. Scott's last expedition to the south pole in 1910, and led other parties to the Antarctic in 1911–12.

EDUCATIONAL problems have in recent years engaged the attention of a multitude of investigators in the United States. In addition to the very numerous and comprehensive researches conducted by the staff of the Federal Office of Education, by State officials and by educational foundations, hundreds of systematic investigations have been carried out by candidates for the degree of doctor in education. A list of 797 theses submitted by such candidates and deposited with the Office of Education, where they are available for loan, has just been published by the Government Printing Office, Washington (pp. 69, price 10 cents). The titles are listed under a hundred subject headings arranged alphabetically, beginning with administration and ending with vocational guidance, with very full cross references under other headings. More than ten per cent of the theses are listed under the heading 'psychology'.

A DEPARTMENT of Business Administration was established at the London School of Economics in the University of London in 1930. Business men have from the outset played an active part in the work of the Department. At the end of the five-year experimental period, the Governors of the London School of Economics have decided, in view of the success which has attended the Department, to make it an integral and more permanent part of the work of the School. In that decision they are supported by the business men associated with the management of the venture. Several of the business firms which contributed towards the cost of the original experiment are generously continuing their financial support of the Department, and additional firms are also assisting. The active co-operation of business men in the actual conduct of the work is being continued in all its aspects, by the establishment of a Business Administrative Council of business men of widely diverse interests. A number of firms now favour the Department's University Scheme as a means of recruiting graduates. Some firms are in a position to offer appointments each year, others do so from time to time as vacancies occur. The post-graduate course of training, extending over one

year of full-time study, remains the principal work of the Department. Students working for higher degrees, and wishing to undertake an investigation of a particular business problem as part of their work, may now combine attendance at the post-graduate course with their research. Particulars of the arrangements for the forthcoming session can be obtained from Prof. Arnold Plant, Department of Business Administration, London School of Economics, Houghton Street, Aldwych, London, W.C.2.

EDUCATIONAL broadcasting in the United States of America was discussed on May 15 at a conference called by the Broadcasting Division of the Federal Communications Commission. A statement made before the conference by the United States Commissioner of Education is reproduced in *School and Society* of June 15. It is remarkable for its insistence on the vital importance of safeguarding freedom of access to the microphone for exponents of all "the important ideas which struggle for acceptance in our complicated world order, so that our people can make intelligent choices in the determination of their destiny". The radio transmission systems in the United States being privately owned and operated, it is incumbent on the Federal Government to prevent their exploitation in the exclusive interests of any one body of doctrine and to ensure, on the contrary, the presentation of differing points of view in well-balanced programmes. With the progressive shortening of hours of labour in factories the field of influence of adult education by radio is rapidly expanding, and the Commissioner's announcement of his readiness to co-operate in a plan for the improvement of education by this means is timely. Much harm has been done by broadcasters imperfectly instructed in the technique of teaching by radio.

## Science News a Century Ago

### Death of Dr. John Brinkley, F.R.S.

ON September 14, 1835, Dr. John Brinkley, Bishop of Cloyne and Royal Astronomer of Ireland, died at his brother's house in Leeson Street, Dublin, at the age of seventy-two years. Born at Woodbridge, Suffolk, in 1763, he was enabled to enter Caius College, Cambridge, and in 1788 was senior wrangler and Smith's prizeman. While studying for his degree, he had assisted Maskelyne at Greenwich, and in 1790, largely through the influence of Maskelyne, he was chosen to succeed Henry Ussher as Andrews professor of astronomy in Trinity College, Dublin, and director of Dunsink Observatory, which had been erected under the superintendence of Ussher. A fine circle had been ordered for the observatory in 1785 from Ramsden, but this instrument was not completed until twenty-three years later, and Brinkley at first confined himself to mathematical work, contributing papers to the Royal Irish Academy and the Royal Society. On the erection of the 8-ft. circle at Dunsink he began researches on aberration and nutation, and made an attempt to determine the parallax of a fixed star. He also published his "Elements of Astronomy", which went through several editions, and his new theory of refraction, and computed the elements of the comets of 1819 and 1821. For this and other work he was made a vice-president of the Royal Society and president of the Royal Irish Academy, and in 1824 received the Copley Medal for his "Various Communications to



the Royal Society". Taking the degree of D.D. in 1806, he became prebendary of Kilgoblin and rector of Derrybrush, in 1808 was made archdeacon of Clogher, and finally in 1826 bishop of Cloyne. His episcopal work from this time occupied much of his energy, and for the last ten years of his life he contributed little to science. He was buried in Trinity College Chapel, and a marble memorial to him was erected in Cloyne Cathedral. His best memorial, said Ball, was his admirable book on the "Elements of Plane Astronomy". He was succeeded in the Andrews chair by William Rowan Hamilton, whose genius he had long recognised.

#### Darwin in the Galapagos Archipelago

CHAP. xvii of Darwin's "Journal of Researches" contains his account of the visit of H.M.S. *Beagle* to the Galapagos Archipelago, the survey of which occupied from September 15 until October 20, 1835. "The archipelago," Darwin wrote, "consists of ten principal islands, of which five exceed the others in size. . . . They are all formed of volcanic rocks; a few fragments of granite curiously glazed and altered by the heat, can hardly be called an exception. Some of the craters surmounting the larger islands, are of immense size, and they rise to a height of between three and four thousand feet". Darwin landed on several of the islands of which, he said, the natural history is eminently curious and well deserving attention. "The archipelago is a little world within itself, or rather a satellite to America, whence it has derived a few stray colonists, and has received the general character of its indigenous productions. Considering the small size of these islands we feel the more astonished at the number of their aboriginal beings, and at their confined range. Seeing every height crowned with its crater, and the boundaries of most of the lava-streams still distinct, we are led to believe that within a period, geologically recent, the unbroken ocean was here spread out. Hence both in space and time we seem to be brought somewhat near to that great fact—that mystery of mysteries—the first appearance of new beings on this earth".

#### Green's Night in a Balloon

CHARLES GREEN (1785–1870), the first aeronaut to make an ascent with carburetted hydrogen gas, spent a night in the air on September 17, 1835. Writing to *The Times* on September 20, 1835, on his late aerial voyage from the Royal Gardens, Vauxhall, he said he ascended with Mr. Butler at quarter to six on Thursday evening, September 17, and at about quarter past six descended at Walthamstow. He then determined to stay in the air all night so, leaving Mr. Butler behind, he reascended, passed over Bishops Stortford, Royston and Huntingdon and at quarter to six on Friday morning landed in the parish of Wimbotsham, near Downham in Norfolk. He partook of an excellent breakfast at the residence of Mr. J. Pike. Then he again ascended and descended at 10.30 a.m. near Lynn, Norfolk. "I received numerous congratulations," he said, "though many persons I believe doubted the statement of my having been in the air during the past night. . . . I remained in the air altogether about 13 hours and from the zigzag direction of my course must have travelled about 130 miles. From the very trifling loss of power the balloon sustained during the whole of this time, I judge I might have remained up at least five days and nights."

## Societies and Academies

### PARIS

Academy of Sciences, July 22 (*C.R.*, 201, 245–308). LOUIS BLARINGHEM: A new case of unilateral heredity observed on hybrids of sages (*Salvia nemorosa* × *S. Sclarea*). STANISLAS GOLAB: The relation between the ideas of measurements of angles and areas in Finsler spaces. ANDRÉ FOULLADE: Unicity with a nearly constant factor, in an undecomposable ensemble, of a function of the ensemble invariant with respect to the transformation associated with a positive, linear functional transformation maintaining unity. JEAN BRAITZEFF: A particular case of the distribution of the singular points of a function defined by a Dirichlet series. MIÉCISLAS BIERNACKI: Some majorants of the theory of univalent functions. PAUL NOAILLON: Sudden expansion in a gas. MIROSLAV NÉNADOVITCH and MAURICE DENIS: Contribution to the experimental study of the stability of certain biplane cells at large incidences. P. CHEVENARD and X. WACHÉ: The accelerating effect of a sinusoidal mechanical tension on the changes in a hypertempered iron-nickel-chromium-carbon austenite. The accelerating effect of the sinusoidal pressure on the precipitation of the carbides is very marked. This results in a certain increase in the mechanical resistance when hot; but in some cases leads to fragility, giving rise to breakage without sensible deformation. RAYMOND TREMBLOT: A contrast star photometer. A modification of the Fabry and Buisson photometer without diffusing screens allowing a better utilisation of the light available when the measurements are carried out on point sources of light of very small luminosity. An accuracy of 0.01–0.02 magnitude is possible. ANDRÉ LÉAUTÉ: The capillary ascent of tars and bitumens. Application of the method previously described to the study of the causes of the changes in a road surface, originally satisfactory but later slippery. MME. LINA GUASTALLA: The oxido-reduction process at the level of a (kaolin) partition interposed in a copper solution, in the course of electrolysis. The factors determining the velocity of its appearance. MARCEL CAU and FÉLIX ESCLANGON: The coherence of light radiations and the possibility of using interference apparatus as monochromatic light sources. WITOLD BRONIEWSKI and W. LEWANDOWSKI: The influence of sulphur on the properties of copper. Amounts of sulphur varying from 0.0 to 0.7 per cent were added to copper, and measurements made of the changes in electrical conductivity, temperature coefficient of the electrical conductivity, thermo-electric power (against lead), breaking load, elastic limit, elongation before breaking and Brinell hardness. The results are given graphically. ROGER PERROT: The action of nitrosyl chloride on some silver salts. M. TIFFENEAU, P. WEILL, J. GUTMANN and B. TCHOUBAR: Molecular transpositions in the cyclane series. Lengthening and shortening of the rings. CHARLES DUFRASSE and ANDRÉ ETTENNE: The dissociable organic oxides. The anthracene structure possesses reversible oxidisability: a dissociable oxide of mesodiphenylanthracene. From the study of the rubenes, the authors have deduced a structure for substances capable of reversible photoxidation, and mesodiphenylanthracene possesses such a structure. This substance has been found to absorb free oxygen, forming a crystallised photo-oxide: it dissociates at