

Educational Topics and Events

CAMBRIDGE.—The Vice-Chancellor gives notice that the professorship of animal pathology will be vacated on September 30 by the resignation of Prof. J. B. Buxton.

The Board of Managers of the Frank Edward Elmore Fund have awarded studentships to A. C. E. Cole of Trinity College, G. D. Hadley of Clare College, L. C. Martin of Gonville and Caius College and B. McArdale. Dr. H. G. Booker of Christ's College has been appointed assistant lecturer in mathematics, and Mrs. J. V. Robinson of Girton College assistant lecturer in economics and politics.

Dr. T. S. Hele has resigned his University lectureship in biochemistry, H. W. Hall of St. John's College, W. A. Fell of Sidney Sussex and R. S. Handley of Gonville and Caius College their demonstratorships in anatomy, Dr. M. Born his lectureship in mathematics and T. C. Nicholas of Trinity College his lectureship in geology.

COURSES in administration have hitherto been specialized or restricted to different fields of administration, such as industrial, business, public, military, colonial and agricultural administration and often with more emphasis on the adjective than the noun. In a recently issued prospectus, Mr. W. R. Dunlop gives a syllabus of a course in administration with no particular applicational bias, though permitting of such bias by the appropriate selection of illustrative cases and problems. The course embodies the principles and technique, the underlying subjects and the mental activity and art common to all administration. Special attention is given to the history of administration from early times and with special reference to policy and leadership. Administration in its wider sense of human purpose and method is held to be one of the primary objectives of general education, and Mr. Dunlop would like to see specific education for administration, or at least management, made part of our educational system. The prospectus is supplemented by appendixes describing the research work, connexions and experience on which these views and the course itself are based. Copies may be obtained on application in writing to Mr. W. R. Dunlop, 57 Gordon Square, London, W.C.1.

DR. ROSCOE POUND, dean of the Faculty of Law of Harvard University, spoke recently at a Graduate School Convocation in Brown University on "The Place of Higher Learning in American Life". The general tenor of Dr. Pound's thoughtful and stimulating address (*School and Society*, August 8) may be inferred from his remark that his topic might well have had for its title "Higher Learning as Insurance of American Institutions" coupled with his opinion that what is significant in those institutions is that they tend to safeguard opportunity for all, freedom, and the corollary of freedom, responsibility. One of the points he makes is in connexion with the enormous development in recent times of means of manipulating public opinion. "The methods of advertising, carried to the limits of psychological effectiveness in business, have been taken over into public affairs. . . . Even newspapers are being left behind by broadcasting. A proper functioning of democratic institutions calls for corresponding development of the means of resistance to this pressure, and the best guarantee of intelligent resistance is to be found in a general high level of learning".

SALESMANSHIP has long been recognized as a suitable subject of instruction in institutions of higher education in the United States. Recently the complementary science and art of shopping have received a good deal of attention, partly because the industrial depression has focused attention more urgently on the problem of how to get the most one can for one's dollar. At four regional conferences on home-economics education called by the United States Office of Education in 1934, this matter was a principal topic of discussion, and on the basis of material resulting from these and later conferences a pamphlet was prepared by specialists of that Office and published under the title "Consumer-buying in the Educational Program for Home-making: Suggestions for Teachers of Home-making in Secondary School and Adult Classes". Among the reasons given for education for buying are the enormous increase in the variety of commodities and services offered and the fact that price has become even less a guide to quality than it was formerly. The United States Government has been zealous in publishing masses of statistics bearing on the subject in the interest of consumers. Among them are numerous publications of the Department of Agriculture, including its food and drug administration. Such is the profusion of data that in July 1934 a special index to them was published under the title "Government Publications of Use to Consumers".

Science News a Century Ago

Lyell and Mantell

IN a letter to Mantell written on September 19, 1836, Lyell referred to John Fleming (1785-1857), the Presbyterian minister and naturalist, who "after several applications in vain for chairs more consistent with his zoological and botanical acquirements", had accepted the chair of natural philosophy at Aberdeen. This appointment, Lyell said, had given him no doubt "much fag to get up arrears of mathematical knowledge. But unfortunately, something worse than the lectures fell to his hard fate. Several University bills and a Royal Visitation caused tremendous secretarian or clerk's labour to fall on the Junior Professor who is obliged to serve as secretary to the University."

"You will see by this that you, my good friend," Lyell continued, "are not singular in finding it difficult to gratify your liberal thirst for science, without interfering with professional profits. Really, as Milman says, it would be well for the country if, instead of abolishing prebendal stalls, they were given to clerical and lay cultivators of literature and science, who had shown that they would devote energy and superior talents to those departments. When Babbage was taunted one day by a Conservative with 'What do you mean to be when the revolution comes?' he said, 'Lay Archbishop of Winchester.'"

Association of German Naturalists

THE annual gathering of the Association of German Naturalists—a society which was a forerunner of the British Association—was held at Jena on September 20-26, 1836. The meeting was attended by many civil and military officials, representatives from Great Britain, Russia, Belgium, Holland, Switzerland,

Greece and Mexico, and many of the greatest German men of science, including von Humboldt, von Buch, Ehrenberg, Weber, Hansen, Reichenbach, Fuchs and Dohereiner.

At the first general meeting, Dr. Kieser, after alluding to the philosophers and naturalists Jena had produced, gave a sketch of the history of the Association. Fifteen years previously, he said, it consisted of only thirteen persons, in 1835 it numbered 500 members and attracted friends from all parts of Europe and even from the other side of the Atlantic. In imitation of the Association, others had been established in England, France, the Netherlands and America. At the same meeting Madler described the structure of the moon and exhibited his map of its surface.

There were three other general meetings, while papers were read to the seven sections: (1) Physico-Chemical Science; (2) Geology, Geography and Mineralogy; (3) Pharmacy; (4) Botany; (5) Anatomy, Physiology and Zoology; (6) Medical, Surgical and Obstetric Science; and (7) Technology and Agriculture. On September 24, the visitors and members were presented to the Grand Duke of Saxe Weimar, and after dining with him and other princes in the Orangery, repaired to the theatre, where Goethe's "Tasso" and Schiller's "Bell" were performed.

Andrew Crosse and his Electrical Experiments

At the British Association meeting in Bristol in 1836, no communication raised more enthusiasm than the account given by Andrew Crosse (1784-1855) of his experiments on electric currents and their effects on minerals. Crosse was a man of means who lived at Broomfield on the Quantock Hills, Somerset, and at Bristol he gave a general invitation for any present at the meeting to visit him. The first to do so was Sir Richard Phillips (1767-1840), who described his visit in a letter to Mantell which was read at a conversazione of the Mantellian Museum at Brighton on September 20. The account was afterwards published in Sturgeon's *Annals*. Sir Richard spoke of the fine house and park and also of the music room in which were seven or eight tables filled with batteries. "They resembled battalions of soldiers in exact rank and file and seemed innumerable. Altogether there were 1,500 voltaic pairs at work in this great room, and in other rooms about 500 more. There were besides, other 500 ready for new experiments". But Crosse's "greatest electrical curiosity was his apparatus for measuring, collecting and operating with atmospheric electricity. He collects it by wires, the 16th of an inch diameter extended from poles to poles, or from trees to trees in his grounds and park".

Walter Hancock's Steam Carriages

In the *Mechanics' Magazine* of September 24, 1836, is an account by Hancock of the work done by his steam carriages *Infant*, *Erin*, *Enterprise* and *Automaton* in London. He said that altogether these carriages had run about 4,200 miles, carried 12,761 passengers, made 525 journeys between the City and Islington, 143 between the City and Paddington and 44 between the City and Stratford. They had used some 55 chaldrons of coke. The same issue of the *Mechanics' Magazine* contained a description of the *Automaton*, the last of the four carriages to be built.

Societies and Academies

Paris

Academy of Sciences, July 27 (*C.R.*, 203, 289-352).

AYMAR DE LA BAUME PLUVINEL: Obituary of Paul Stroobant.

J. GERONIMUS: Some orthogonal polynomials.

GEORGES GIRAUD: Complement to a result on equations with principal integrals.

KYRILLE POPOFF: The pendular movement of projectiles.

EMILE MERLIN: A particular case of trajectories of certain heterogeneous perfect fluids.

ASSENE DATZEFF: A transformation which keeps the form of canonical equations.

RAYMOND CHEVALLIER and MARCEL LAPORTE: The permanent magnetization of steel in the neighbourhood of a circuit traversed by a rapid aperiodic discharge.

LOUIS NEEL: The theory of constant paramagnetism. The application to manganese.

G. FOEX and CH. FEHRENBACH: Variations of the magnetic moment of the cobalt ion in the anhydrous chloride and in the systems of mixed crystals $\text{CoCl}_2\text{-CdCl}_2$ and $\text{CoCl}_2\text{-MnCl}_2$.

MME. MARIE FREYMAN, RENE FREYMAN and PAUL RUMPF: The absorption spectra in the near infra-red of aniline derivatives.

ROGER SERVANT: A spectro-polarimeter for the Schumann region.

LEON CAPEDECOMME: The influences of elliptic light and of the orientation of the polarizer in comparisons of reflecting powers with the microscope.

PIERRE BRUN: The formation of metallic alcoholates.

HENRI MURAOUR and ALBERT MICHEL LEVY: The spectrum of ionized calcium obtained by collisions with detonation waves.

ANDRE KLING and MAURICE CLARAZ: The rapid determination of oxygen in gaseous atmospheres.

JEAN BYE: Study of molybdic chlorhydrin and of the normal molybdate of glycol.

CHARLES BEDEL: The minimum temperature of oxidation of silicon. The lowest temperature at which the oxidation of silicon commences is relatively high: it is lowered by the presence of moisture.

MME. DENISE MONTAGNON: Contribution to the study of the double iodides of copper and ammonium.

CHARLES DUFRAISSE, LÉON VELLUZ and MME. LEON VELLUZ: Dissociable organic oxides. Special study of 9-phenylanthracene and of some of its derivatives.

ROGER PERROT: Some nitrosochlorides of the benzene series.

MILLES. MARTHE MONTAGNE and YVONNE ISAMBERT: The action of ethylmagnesium bromide on butyric ethylanilide.

MARTIN BATTEGAY and PIERRE BEHLER: α - and β -mononitroanthracene.

ANDRE MEYER and PAUL HEIMANN: The nitroso derivative of 4-hydroxycarbostyryl.

GEORGES LEVY: The nitration of β -ethylnaphthalene. The synthesis of 2-ethyl-8-naphthol.

GONZAGUE DUBAR and MME. DOROTHEE LE MAITRE: New deposits of Spongiomorphides and of Algé in the Lias and the Bajocian of Morocco.

CHARLES BOIS: Deep focus earthquakes.

ACHILLE URBAIN and R. CAHEN: The proportion