

The celebrations were admirably organised: the attractive Hungarian national uniform worn by the University officers, the brilliant robes of the cardinals, the white, brown and black vestments of members of monastic orders, and the variety and wealth of colour represented by the gowns and hoods of delegates contributed to the gaiety and splendour of a great occasion. The celebration was an important national event which made a very favourable impression upon the international company and created a feeling of sympathetic interest in the welfare of a courageous nation. Delegates who had the good fortune to be guests of the University in one of the most beautiful of European cities will long retain the pleasantest memories of the friendliness of the Rector Magnificus, the Ministers of State and the University officers with whom they came into contact.

Educational Topics and Events

CAMBRIDGE.—The managers of the Balfour Fund have made a grant of £100 to F. R. Parrington, of Sidney Sussex College, for researches on the fish fauna of the Achenarass quarries.

It is proposed to confer the degrees of M.A. and M.D. *honoris causa* upon Dr. J. A. Ryle, regius professor of physic, and the degree of M.A. on Dr. G. P. McCullagh, University demonstrator in pathology.

LEEDS.—Mr. Frank Stuart Atkinson has been appointed to the chair of mining, in succession to Prof. Ritson, who takes up his appointment at the Royal School of Mines at the beginning of January next. Mr. Atkinson is a qualified mining engineer. He was educated at Chesterfield Grammar School and the University of Sheffield, and has had a long and varied experience of practical work; he has been manager of the Hatfield Main Colliery since February 1927.

LONDON.—The title of Edwards professor of Egyptology in the University has been conferred on Mr. S. R. K. Glanville, in respect of the post held by him at University College.

The title of emeritus professor of bacteriology in the University has been conferred on Dr. J. W. H. Eyre, formerly University professor of bacteriology at Guy's Hospital Medical School; and that of emeritus professor of civil engineering in the University on Mr. A. H. Jameson, who has retired from the University chair of civil engineering at King's College.

OXFORD.—Dr. John Mellanby, professor of physiology in the University of London, has been appointed to the Waynflete professorship of physiology, to hold office from January 1, 1936.

The Council of the Institution of Naval Architects has made the following awards: 1851 Exhibition Commissioners post-graduate scholarship in naval architecture, £250 per annum for two years, to Mr. Harrison Lackenby, of Armstrong College, Newcastle-upon-Tyne; Sir William White post-graduate scholarship in naval architecture, £150 per annum for two years, to Mr. Ian C. Bridge, of the University of Glasgow; Earl of Durham Prize, to Mr. D. H. Burnett, of H.M. Dockyard, Devonport.

Science News a Century Ago

Meeting of the Entomological Society

AT a meeting of the Entomological Society held on November 2, 1835, the president, the Rev. F. W. Hope, being in the chair, several communications were read, one of which was a notice of the ravages of the black caterpillar upon the leaves of the turnip in Kent, by W. W. Saunders. "Relative to this communication Mr. Yarrell stated some additional circumstances regarding the destruction of the turnip last summer and autumn, by the insect in question, which were the larvæ of a species of Saw-fly (*Tenthredinidæ*) termed by the farmers 'the blacks'. In the dry summer of 1818 these insects were equally destructive, and so rapid is the destruction caused by them, that in a couple of days a fine field of turnips is reduced to the mere skeleton of the leaves. Mr. Hope gave an account of some other insects which had this year been equally injurious to the turnip in Shropshire, Herefordshire and Worcestershire and suggested several plans for their destruction."

Beginning of Faraday's Researches on Electrostatics

"HAVE been thinking much lately," wrote Faraday in his Diary on November 3, 1835, "of the relation of common and voltaic electricity; of induction by the former and decomposition by the latter, and am quite convinced that there must be the closest connexion. Will be first needful to make out the true character of ordinary electrical phenomena. The following notes are for experiment and consideration.

"Does common electricity reside upon the surface of a conductor," he went on, "or upon the surface of the electric in contact with it? I think upon the electric, and must work out the results on that view. It will make a great difference in the collation and connexion of the various electrical phenomena and also in their explication."

Then follow a dozen or so pages, written on the same day, of speculation on such points as the effect of the form of a conductor on its electrical behaviour, on the relation of two surfaces under induction, and on the state of the dielectric, or as he called it, the "electric", during the persistence of inductive action. Together with the queries are ideas and suggestions for experiments by which they may be tested.

This was the beginning of Faraday's researches on electrostatics. The work on electrochemistry had been completed early in the year, and very little had been done during the summer months. Now, in the autumn, he was ready to begin again, and the first step was to put down on paper the ideas for experiment that had come crowding to his mind; next, in a few weeks time, he would be devising the necessary apparatus.

New Session of the Geological Society

ON November 4, 1835, the Geological Society held its first meeting of the session. A paper by Dr. Buckland was first read on the discovery of the beaks of four extinct species of fishes, referable to the genus *Chimaera*, and found in the Oolitic and Cretaceous series of England. The paper was accompanied by an appendix by M. Agassiz, describing the distinctive characters of each species.

A communication by Mr. Murchison was next read, containing an account of the quarry in the new red sandstone at Rhone Hill, near Dungannon, in which

numerous ichthyolites had been found, and of the geological structure of the adjacent district. A slab of the sandstone, presented to the Society by Mr. Greer, the proprietor of the quarry, was laid upon the table, and exhibited on a surface not exceeding two feet square impressions of above 250 fishes.

M. Agassiz afterwards gave a succinct account of his researches on English fossil fishes. The number of species which he had noticed amounts to about 400, of which 300 were new, and he stated that the specimens, too imperfect to be described at present, announce the existence of a still greater number of species.

King of Denmark's Medal for Astronomers

In the *Athenæum* of November 7, 1835, was a statement regarding the founding by the King of Denmark of a gold medal, of the value of twenty ducats, to be given to the first discoverer of a telescopic comet. The discoverer who desired to be considered for the award, if in any part of Europe except Great Britain, had to send immediate notice of his discovery to Prof. Schumacher, of Altona, and if in Great Britain, or any other quarter of the globe except the Continent of Europe, to Francis Baily, of Tavistock Place, London. The medal was to be adjudged twelve months after the discovery of the comet, and no claim could be admitted after that period had elapsed. Prof. Schumacher and Mr. Baily were to determine whether a discovery was to be considered established or not, but if they differed in opinion, Dr. Olbers, of Bremen, was to decide between them.

tetrachloride, cyclohexane and ether) the existence of the compound ($C_6H_5NH_2, 2C_6H_5OH$) is deduced, and this has been isolated in the form of colourless crystals melting at $29.2^\circ C$. ANDRÉ LÉAUTÉ: The capillary separation of tars. When studying the ascent in capillary tubes of tars and bitumens, it has been noticed that two liquids appear in the tube, the upper a clear yellow fluid, the lower black tar. This explains the appearance of yellow exudations on the surface of tarred roads. ANDRÉ CHRÉTIEN and GEORGES VARGA: Two new compounds of titanium tetrachloride and hydrochloric acid. The cryoscopic study gives indications of the existence of the compounds $TiCl_4, 6HCl$, and $TiCl_4, 2HCl$. The first of these is a new type. JOSEPH HOCH: A new general method of preparation of the *N*-carboxethylketimines, $RR'C=N.CO.O C_2H_5$. The diethylacetals of the ketones are condensed with ethylurethane in the presence of a trace of aniline hydrochloride. JACQUES FROMAGET: The upper Trias of the western border of the Tran Ninh (Haut Laos). CHARLES FRAIPONT: A skull of *Homo neanderthalensis* from the grotto of Engis (Liège). A detailed examination of the small skull found along with the celebrated Engis skull in 1828. ANGEL H. ROFFO: The action of solar rays (ultra-violet) on the skin, and the accumulation of cholesterol. The effect of the sun's rays, especially the ultra-violet rays, produces a local accumulation of cholesterol under the skin. W. KOPACZEWSKI and S. MARCZEWSKI: Anaphylaxy from the point of view of altitude. A study of the effects of reduction of atmospheric pressure, corresponding to an altitude of 10,000 metres, on animals sensitised by an injection of protein. RAYMOND-HAMET: The physiological inversion of the hypotensor effects of adrenaline.

Societies and Academies

PARIS

Academy of Sciences, September 30 (*C.R.*, 201, 533-572). CHARLES CAMICHEL, LÉOPOLD ESCANDE, ETIENNE CRAUSSE and JEAN BAUBIAC: Linear hydraulic elements and the resistance of immersed bodies in permanent or transient regime. RAYMOND MINDLIN: Contribution to the problem of equilibrium of elasticity of an indefinite solid limited by a plane. BERNARD LAFFAILLE and FLORIN VASILESCO: The *flambage* of thin cylindrical plates. JOHN ELLSWORTH: The asymmetry of the light curves of variables with eclipses attributable to a tide lag. F. DUSCHINSKY: The bands in the neighbourhood of spectral lines in the ultra-violet. GASTON DUPOUY and PIERRE JACQUINOT: The proportionality of the deviations in the field in the Zeeman effect of three mercury levels. HORIA HULUBEI: New "*hors diagrammes*" emissions in the $K\alpha$ spectra of elements included between Cu(29) and Rh(45) inclusively. M. O. HUN: The cryoscopic study of the total hydration of the ions of sodium bromide. M. MARGUERITE QUINTIN: The heat of dilution of cadmium chloride. M. SUZANNE VEIL: The electromotive forces due to bringing together metals in gelatine, and the importance of the Volta effect in batteries. JEAN CHÉDIN: The Raman spectrum of nitric anhydride. The Raman spectra of nitric anhydride in organic solutions (chloroform, carbon tetrachloride) differ from those given by the same substance in nitric acid or in sulphuric acid. PIERRE LAURENT: A new compound of phenol and aniline. From measurements of the dielectric capacity of mixtures of phenol and aniline in various solvents (benzene, carbon

ROME

Royal National Academy of the Lincei, May 19. V. NOBILE: The possibility of new trends in the theory of astronomical refraction and of incidental contributions to the physics of the atmosphere (2). F. SBRANA: Monodrome parallelism on a surface. U. CASSINA: The construction of the plane osculatory to a quartic of the first species. A very simple linear construction of finite character is given. N. SPAMPINATO: (1) Functions totally derivable in a real or complex algebra endowed with modulus (2). (2) A characteristic property of totally derivable functions. B. SEGRE: The bi-relations on the non-developable surfaces of space and the geometric conditions for projective equivalence between them (2). G. BOZZA: The deposition of crystalline suspensions. (1) General theory. The general relationships between the various factors involved in the deposition and separation of crystalline granules from suspensions are deduced for the case when the granules are of such dimensions that the surface influences between granules and liquid are negligible. C. SCHAEFFER and L. BERGMANN: A new optical method for the determination of the elastic constants of crystals. Diffraction centres may be formed in a quartz cube by exciting this to rapid elastic oscillations by means of a field which oscillates 10^7 to 10^8 times a second. If monochromatic light is passed through the vibrating crystal, a diffraction figure is formed which depends on the elastic properties of the crystal and on the direction of the rays, but is independent of the form of the crystal and of the type of the excitation. Various examples are described. G. WATAGHIN: The theory of protons and neutrons. By a slight modification of