

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

BIRMINGHAM.—At the eighteenth annual meeting of the Court of Governors of the University in February last, a committee of twelve of its members was appointed to take into consideration the vacant Chancellorship. The committee has held three meetings, and after careful consideration will present a report to the special meeting of the Court, which has been convened for May 23, in which it will recommend that, subject to the approval of the Crown, the Rt. Hon. Lord Robert Cecil, K.C., M.P., be elected Chancellor of the University.

CAMBRIDGE.—Reports recommending changes of considerable consequence have recently been discussed by the Senate. The report of the previous examination syndicate, in which, among other proposals, the abolition of compulsory Greek and the imposition of compulsory science were recommended (*NATURE*, March 14, p. 37), formed the subject of an important debate, in which many prominent members of the University took part, and in which, naturally, the retention of compulsory Greek found strong advocates. In answer to the criticism, on which some stress was laid, that it was inconsistent to remove compulsory Greek and at the same time to impose compulsory science, it was pointed out by more than one speaker that science was rightly to be compared, not with Greek, but with language as a whole. Another question of considerable importance which has been discussed is a report of the council of the Senate on the length of terms. It is proposed that the Michaelmas and Lent terms should each consist of nine, and the Easter term of eight, complete weeks. This would add seventeen days in the year to the usual period of University residence. There is also a suggestion that the general degree examinations should be held so far as possible out of full term—that is to say, in the long vacation. In the discussion one of the points emphasised was that the vacations were by no means periods in which nothing was done. A large proportion of the original work which went on in the University had to be carried out in the vacations.

The question of degrees for women has again been raised by the issue of a flysheet, bearing a number of influential signatures, in which the proposal is made that as soon as the general state of affairs admits of full consideration being given to the matter, a syndicate should be appointed to report on the measures necessary for the admission of women to membership of the University. It is suggested that membership of the University should include membership of the Senate and eligibility to serve on boards and syndicates or hold any office in the University. A reply to this has been published by a number of prominent members of the University, asking members of the Senate to abstain from pledging themselves to these proposals at the present time, when so many of the younger members are absent on war service. It is further suggested as a solution which might find general acceptance that, so far as the absence of a degree is a disadvantage to women students at Cambridge, this could be obviated through the acquirement by an official body representing the women's colleges in Cambridge of power under charter in affiliation with the University to confer degrees on women students.

SIR R. ARMSTRONG-JONES has been elected Gresham professor of physic, Gresham College, London, in succession to the late Dr. F. M. Sandwith.

PROF. A. R. CUSHNY, F.R.S., has been appointed to succeed Sir T. R. Fraser as professor of materia

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medica and pharmacology in the University of Edinburgh.

By the will of the late Mr. Charles Hawksley, a sum of 3000*l.* is bequeathed to the Institution of Civil Engineers for scholarships or prizes and legacies to persons in his employment.

So far back as 1838 it was urged that the city of Cork, which claimed to hold a position somewhat similar to that of Edinburgh in art and letters, was entitled to be the seat of a university for the South of Ireland. This claim has never been abandoned, although when from time to time it has been advanced—as, for example, on the establishment of the Queen's University in Ireland in 1850, of the Royal University in 1884, and of the National University in 1908—the answer given has always been that neither in number of students, in buildings and equipment, nor in the public support accorded by the province of Munster was the college strong enough to justify its transformation into a university. In all these respects a great change has come over the college during the past ten years. Its students now exceed five hundred in number; its buildings, especially its scientific laboratories, have been greatly extended; its staff has doubled, and a large and well-appointed hostel has been provided. The college now claims that it is as much entitled to the enjoyment of autonomy as the University of Belfast. A strongly supported movement is on foot to obtain a charter. A pamphlet issued by the governing body affords remarkable evidence of harmonious co-operation between all sections of the people of Munster, both Catholic and Protestant. This pamphlet is interesting as showing the extreme inconvenience of the federal system: Cork is 160 miles from Dublin, where the senate of the N.U.I. meets. Much time is wasted by the representatives of Cork in travelling thither, and when they reach the senate they find themselves outvoted by the representatives of Dublin. Nor does a member of a federation obtain the degree of control of its own affairs which is essentially desirable. Recently the senate decided that under its statutes the University alone has the right to say what new chairs shall be set up in the colleges, and this decision has been upheld by the Privy Council. The pamphlet also raises the very much larger question of centralisation *versus* the encouragement of local patriotism, adopting the view which is now generally taken that college and university should be synonymous terms, the United Kingdom being divided into provinces, each with its focus of university learning and education.

THE Education No. 2 Bill is at last in Committee of the whole House. It is the subject of an unusually large number of amendments, but the Minister of Education is giving evidence of no less tact and discretion in dealing with opponents whose purpose it is to wreck the Bill, or with extremists who, because of their zeal for education, submit amendments some of which under present conditions are impossible of achievement, than he has hitherto exhibited, with such striking sincerity of conviction, in advocating the general policy of the Bill, which has secured for it so large a measure of general support. In the course of two nights' debate the first three clauses of the Bill were considered, dealing respectively with the progressive and comprehensive organisation of education, the development of education in public elementary schools, and the establishment of continuation schools. Much concern was expressed by some Members as to the possibility of clause 1 being interpreted to mean that a decided bias might be given to definite vocational instruction, but strong assurances were given to the contrary, whilst at the same time it was made

clear that, so far as continued education was provided under the Bill, it was undesirable that attention should not be paid during the four years of compulsory attendance to the requirements of the vocation in which the young person was engaged and by which he was to live. With respect to free secondary education, strongly advocated by certain Members, Mr. Fisher pointed out that 67 per cent. of the children in State-aided secondary schools had already been in receipt of free instruction in the elementary schools, and that to abolish all fees in the secondary schools would mean a loss to the State of an annual revenue of 1,200,000l., but he was prepared to submit a new sub-clause to clause 4 calling upon the local authorities in preparing schemes to provide means whereby no child because of poverty should be precluded from the benefits of higher education. In the organisation of advanced courses in public elementary schools, it was agreed to have regard not only to the older, but to the more intelligent children also who stay at such schools beyond the age of fourteen, and to add to clause 2 (a) (ii) of the Bill the words: "So much of the definition of the term 'elementary school' in section 3 of the Act of 1870 as requires that elementary education shall be the principal part of the education there given shall not apply to such courses of advanced instruction for older pupils." With these and other slight amendments clauses 1, 2, and 3 were added to the Bill. Clause 4, dealing with the consultation of authorities for the purposes of part iii. of the Education Act, 1902, was under consideration when the Committee adjourned. There are many formidable amendments yet to be considered, notably those relating to clause 10, on continued education, but the progress already made augurs well for the future course of the measure.

SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, May 2.—Sir J. J. Thomson, president, in the chair.—Dr. J. H. Mummery: Nerve end-cells in the dental pulp. The author has carried further his researches on the distribution of the nerves of the dental pulp. In a paper published in the Phil. Trans. for 1912, he demonstrated that the fibres from the nerve plexus in the pulp beneath the odontoblasts do not terminate at the inner margin of the dentine as described by Huber and others, but that, although they form an open plexus around the odontoblast cells, they are also distributed to the dentinal tubes and enter the dentine in company with the dentinal fibril, but make no connection with it. Recent preparations with improved methods have demonstrated that the fibres from the deep plexus in the pulp pass to definite nerve end-cells or peripheral nerve end-organs, which this method of staining has revealed at the inner margin of the odontoblasts.—H. Onslow: The nature of growths in colloidal silica solutions. The late Dr. Charlton Bastian claimed to have synthesised certain symmetrical bodies, resembling *Torulæ* and other minute organisms, from sterilised colloidal solutions which had been exposed for a long period to light. Further, he claimed that such organisms were capable of reproducing themselves. The author has repeated the experiments, using the special samples of sodium silicate reserved for and recommended by Dr. Bastian and following his directions in every detail. The greatest precautions were taken to avoid accidental contamination. The results obtained indicate that the method employed yields tubes which are absolutely sterile for all periods up to three years.

Physical Society, April 26.—Prof. C. H. Lees, president, in the chair.—J. Guild: Notes on the Pulfrich refractometer. The paper deals with points to be

observed in the use and design of Pulfrich refractometers. A theoretical investigation of the various errors to which measurements are liable is included.—F. Simeon: The accuracy attainable with critical-angle refractometers. The three factors controlling the determination of a refractive index by means of a critical-angle refractometer are, so far as the prism system is concerned, (i) the angle of the prism, (ii) its refractive index, and (iii) the angle of emergence of the critical ray from the second prism face. Expressions are obtained for the variation of the required refractive index with each of these factors separately, and curves are given connecting these variations with the angle of emergence from the second prism face for various prism angles.—Prof. H. Chatley: Cohesion (fourth paper). The paper is the fourth of a series dealing with the subject of cohesion. The aim of the present paper is to consider the value of molecular force as indicated by Van der Waals's gas formula (particularly at the critical state where the liquid and gaseous states merge), and to relate the results to the previous inquiry.

Linnean Society, May 2.—Sir David Prain, president, in the chair.—G. M. Thomson: A new fresh-water shrimp (*Caridina*) from Fiji.—Dr. Marie Stopes: *Bennettites Scottii*, sp. nov., a European petrification with foliage. A new species of *Bennettites* is described, externally very like a *Williamsonia* "fruit" as regards both shape and size. It is, however, a young vegetative trunk, probably a "sproutling." The three main points of particular interest about it are:—(1) It is the smallest trunk of *Bennettites* yet known; (2) it is the first European specimen to include well-petrified young foliage; (3) it is well preserved, and elucidates some anatomical details of leaf-structure not completely known from the American specimens.—Dr. Marie Stopes: A survey of the biological aspect of the constitution of coal. The history of the complicated substance known as coal was narrated, from its earliest microscopical investigation in 1833 by H. T. M. Whitham, and shortly afterwards by William Hutton (1798–1860). Four special substances were particularised as building up coal, and some concluding remarks were devoted to the ecological aspect of coal in its formation in geological times.

Mathematical Society, May 9.—Prof. Hilton, vice-president, in the chair.—E. L. Ince: The continued fractions connected with the hypergeometric equation.—W. P. Milne: Determinantal systems of copolar triads on a cubic curve.—A. Young: The electromagnetic properties of coils.

PARIS.

Academy of Sciences, April 29.—M. Ed. Perrier in the chair.—J. Boussinesq: Calculation to the second approximation of the limiting thrust exerted on a vertical wall by a *terre-plein* with free horizontal surface.—C. Richet, P. Brodin, and Fr. Saint-Girons: The influence of intravenous injections of isotonic liquids on the dilution of the blood and on the number of red-blood corpuscles which may be lost in bleeding: From experiments on dogs, the classical theory is found not to be in complete accord with fact. The immediate cause of death by bleeding is a more complex problem than has hitherto been supposed.—E. Ariès: The saturated vapour pressures of triatomic liquids. The formula derived in earlier communications is applied to the examination of the experimental data for carbon dioxide, sulphur dioxide, and nitrous oxide. There are some divergences between the calculated and experimental values, the causes of which are discussed.—J. Haag: The application of the law of Gauss to syphilis. The application of the theory of probability to 120 cases of syphilis shows that the