National Union of Scientific Workers.

THE annual meeting of the council of the National Union of Scientific Workers was held at King's College on November 13. In his address Dr. J. W. Evans, the retiring president, dealt with the subject of "Research at the Universities." Dr. Evans paid a tribute to the achievements of scientific workers during the war, and pointed out that the task ahead of them was of even greater consequence and allowed of no relaxation of effort. After summarising the activities of the Department of Scientific and Industrial Research, he expressed dissatisfaction with the present attitude of this Department towards the scientific and technical faculties of our universities. Since the publication of its first report the Department appeared to have abandoned the more fruitful policy of encouraging to the utmost the research workers at the universities. The restrictive character of the present grants to individual workers at such institutions tended to divorce research from teaching. In his opinion this was a fundamental error, since the best results in research could be achieved only by those who devoted some time to teaching. Apparently the Department looked to the universities and technical colleges to maintain a supply of competent research workers for the State-aided research associations rather than to undertake industrial research for themselves. He considered that a teaching staff engaged in research work, both in pure science and in its applications to industry, was in a more favourable position to discover and develop new principles than research workers isolated and restricted in the laboratories of research associations or even Government research institutions. In conclusion, Dr. Evans urged the importance of universities including in any course in science some training in research methods. This he embodied in a resolution which was supported by Prof. Soddy, who stated that Prof. Perkin had already applied this principle to the chemistry courses at Oxford Univer-sity. Chemistry students there had shown by their enthusiasm how much the change was appreciated.

Continuing, Prof. Soddy said that since the president had prepared his address there had been a complication brought about by a request from the War Office that the universities should undertake research into the development to the utmost extent of chemical warfare research for offensive and defensive purposes. He expressed the view that it was a matter that must inevitably be considered, sooner or later, by the union. It ought to be considered before rather than after the occasion arose. He was glad that the executive of the union had already decided to appoint a committee to go into the whole question.

a committee to go into the whole question. The resolution disapproving of the policy of the Department of Scientific and Industrial Research, in establishing and financing research associations, which hands over to the private use of profit-seeking monopolies valuable knowledge obtained at the expense of the whole community, and places the research associations in a position to exploit the scientific workers of the country for their own benefit, was carried unanimously. Prof. Soddy stated that the Government had capitulated to the big business interests in politics and departed altogether from its original intentions. There was no greater example of unfair competition than in the chemical industries.

Mr. A. A. Griffith, in moving a resolution that for the present Advisory Council of the Department should be substituted a council elected on different principles, pointed out that there could be little effective criticism of the Department under the existing arrangement whereby the Government practically appointed its own critics. It was certain that a

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council part of which was elected by democratically constituted scientific organisations would result in more careful scrutiny and criticism of the acts of the Department.

A resolution by Mr. F. A. Potts to the effect that scientific workers employed as whole-time officials in Government Departments should enjoy status and pay not less than those enjoyed by the administrative class of Civil Servants was carried unanimously.

Prof. Leonard Bairstow was elected president for the ensuing year.

University College of Swansea.

THE University College of Swansea, which was incorporated in January of this year and made a constituent college of the University of Wales by a new University charter sealed as recently as August 13, opened its first session on October 5. The court of governors of the college held its annual meeting on Monday, November 15, and at the conclusion of the meeting the principal, Dr. T. Franklin Sibly, delivered an inaugural address.

After paying a tribute to the pioneers of the university movement in Wales, the principal recalled the fact that the local initiative and private benefactions which brought the college into being had their mainspring in the demand for scientific teaching and research which should benefit the great industries of the district. But no time was being lost in making provision for a faculty of arts, in willing response to the insistent local demand which arose from the conviction that a one-sided institution could possess no full title to university rank. It was, however, in the domain of science that the college would always discharge a large part of its mission; and Dr. Sibly laid emphasis upon the true humanity of the man of science and the nobility of the scientific ideals of a search for truth and of a disinterested co-operation with other workers.

The college was situated in the industrial heart of Wales. The leaders of local industry, headed by the president of the college, Mr. F. W. Gilbertson, were displaying a unique degree of enlightenment and generositv in their support of the college. To the original endowment fund of some 70,000*l*. they had already added donations amounting to more than 4000*l*. and subscriptions which totalled more than 6000*l*. per annum. The subscriptions, having been promised for a period of five years, were expected to earn an equivalent annual grant from the State. Dr. Sibly believed that the workpeople of the district would prove no less staunch as supporters.

The Municipality of Swansea, which had promoted the college, had already given a magnificent site of forty-five acres in Singleton Park, offered the use of Singleton House, and promised further support. The college set the highest store on all grounds by its close association with the town.

There were, however, some serious material disadvantages. The adverse factors of inflated prices and depreciated currency were all the more serious in view of the relatively heavy cost of staffing and equipping technological departments. The measure of State aid in sight was quite inadequate.

Outlining the range of their activities and the spirit in which they entered upon them, the principal laid stress upon their work in applied science on one hand, and upon the extra-mural field open to them on the other. They possessed the means of building up a great school of metallurgy which would work in the closest co-operation with industries at its very doors. A strong department of mining and fuel technology would be essential to the future development of the college, but the funds needed for its inception were not yet forthcoming. They realised the vital importance of research in these fields as in others. Adult education was one of the greatest problems of the modern universities, and they sought to take the university to the people in the fullest possible measure.

It was a duty and an essential of success to associate themselves as closely as possible with local needs and national aspirations, but they had also to play their part in the world-mission of the universities. They were laying the foundations of a great institution which would exist and work in order to enrich the life of the people.

University and Educational Intelligence.

BIRMINGHAM.—The Huxley lecture is to be delivered in the Mason College on Friday, November 26, by Prof. C. S. Sherrington, who has chosen as his subject "The Gateways of Sense." The lecture is open to all members and friends of the University.

EDINBURGH.—Dr. John Stephenson, until recently professor of zoology in Government College, Lahore, has been appointed lecturer in zoology in the University.

OXFORD.—On November 16 Convocation passed a cordial vote of thanks to Prof. James Mark. Baldwin for his offer to pay for the present, in honour of his friend, Prof. Poulton, an annual sum of 100*l*. into a fund to be called "The Edward Bagnall Poulton Fund," to be applied at the discretion of the Hope professor of zoology for the time being in the promotion of the study of evolution, organic and social. Prof. Baldwin has also announced his intention of leaving by will moneys for the sustentation of such a fund.

The nomination by the Council of the Royal Society of Prof. C. S. Sherrington, Waynflete professor of physiology, to the presidency of the society has given great satisfaction throughout the University.

MR. G. S. ROBERTSON has been appointed lecturer on agricultural chemistry in the newly founded department of agriculture of the Queen's University of Belfast.

LORD ATHOLSTAN has given 100,000 dollars (more than 25,000l. at the current rate of exchange) to the special fund now being raised by McGill University, Montreal.

THE Toronto correspondent of the *Times*, in illustration of the liberal attitude of the Quebec Government towards education, states that the Legislature will be asked to vote 1,000,000 dollars (approximately 250,000*l*.) to McGill University.

COL. S. L. CUMMINS, who in 1912 succeeded Sir William Leishman as professor of pathology of the Royal Army Medical College, Millbank, has been appointed to the new chair of tuberculosis at the Welsh National Medical School, founded by Major David Davies, M.P.

WE learn from the *Times* that the Government of Burma has decided to establish a university at Rangoon. The administration will be in the hands of a council, with an executive committee, comprising representatives of such bodies as the Burma Chamber of Commerce and the Rangoon Trades Association; while matters connected with teaching will be in charge of a Senate composed almost exclusively of professors and lecturers.

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DR. RUSSELL WELLS, Vice-Chancellor of the University, was entertained at a house dinner at the University of London Club on November 10. Lord Moulton, who presided, paid a high tribute to Dr. Wells's work for the University, referring particularly to his success in raising 300,000l. for degrees in commerce, mainly from men of business. Work of this kind tended, he said, to break down the isolation which was so frequently the bane of universities. Dr. Wells said that their object was to make the University of London in the educational world what the City of London was in the world of commerce.

THE first Congress of Universities, which was held in London in 1912, was a conspicuous success. All the universities of the Empire, to the number of fiftythree, were represented, in most cases by their executive heads, together with several of their professors. The report of the proceedings, an imposing volume of some 460 pages, is a valuable contribution to the politics of education. The Universities Bureau was an outcome of this congress. To it was entrusted the summoning of future congresses at intervals of five years. The war prevented this intention from being carried into effect, and, since hostilities ceased, the great pressure under which the universities have been working has made it impossible for their representatives to gather from the four corners of the Empire earlier than next summer. It has now been arranged that the second con-gress shall be held in 1921. Dr. Alex Hill, who organised the first congress and has acted as secretary to the Bureau since its institution, is en-gaged in its promotion. The number of universities in the Empire has now increased to fifty-eight. It is hoped and anticipated that all will make a point of sending delegates to this great council on higher education. With great generosity the University of Oxford has invited all members of the congress to be its guests on July 5-8. The Chancellor of its guests on July 5-8. The Chancellor of the University, Lord Curzon, will preside over the morning session on July 5, and Mr. A. J. Balfour, Chancellor of the University of Cambridge, will preside in the afternoon. On the preceding day the congress will assemble in London for certain ceremonial functions and entertainments, of which the programme will be announced at a later date. During the fortnight preceding the meeting of the congress members from overseas will visit the various un ersities of the United Kingdom in turn, in order that they may become acquainted with their method and resources.

Societies and Academies.

LONDON.

Royal Society, November 11.—Sir J. J. Thomson, president, in the chair.—Dr. W. G. Ridewood: The calcification of the vertebral centra in sharks and rays. In the course of the inquiry 150 sharks and rays, belonging to 68 species and 44 genera, were examined. The investigation largely resolved itself into ascertaining the limits of the three component cartilages of the definitive centrum, namely, the sheath-cartilage, the arch-cartilage, and the perichondrially produced cartilage, and studying the relations of the calcified lamellæ to these parts. Similarity in pattern of the calcified lamellæ is shown in certain cases to be homoplastic, the lamellæ being developed in sheath-cartilage in some genera and in perichondrial cartilage in others. In some cases the similarity may be accounted for by convergent degeneration from ancestral types which there is reason to believe were themselves dif.