

for a time a member of the Senate, and up to the date of his death was chairman of the delegacy which governs the City and Guilds Engineering College. It was at his instance that the Institution of Civil Engineers adopted an examination scheme so that candidates for admission to membership must now pass an educational test as well as an investigation of their experience in constructional work.

At the memorial service held at St. Margaret's Church, Westminster, on Saturday, January 26, there were present, in a large and distinguished congregation, representatives of many scientific societies and other bodies with which Sir J. Wolfe Barry was connected, including the following:—British Science Guild (Sir Robert Hadfield and Sir Alex. Pedler); City and Guilds Engineering College (Profs. W. E. Dalby, A. R. Forsyth, and T. Mather); Imperial College of Science and Technology (Sir Alfred Keogh and Mr. Alexander Gow); Institute of Municipal and County Engineers (Mr. Thomas Cole); Institution of Civil Engineers (Mr. Harry Jones and Dr. J. H. T. Tudsbury); Institution of Electrical Engineers (Mr. R. Elliott-Cooper and Mr. Alexander Ross); Institution of Naval Architects (Sir Henry J. Oram and Mr. Robert W. Dana); King's College, London (Mr. W. Smith); National Physical Laboratory (Sir Richard Glazebrook); Royal Institution (Sir W. Phipson Beale and Hon. R. C. Parsons); Royal Society (Sir J. J. Thomson and Sir Richard Glazebrook); Royal Society of Arts (Mr. A. A. Campbell Swinton and Mr. G. K. Menzies); and Surveyors' Institution (Mr. Alexander Goddard).

DR. WILLIAM GREENWELL, F.R.S.

THE distinguished archaeologist, Dr. William Greenwell, of Durham, died on January 27 in his ninety-eighth year. He was affectionately referred to by everybody as Canon Greenwell, on the strength of a minor canonry of Durham, which was the highest promotion the Church found for him, and which he adorned for more than sixty years. For all that time he was the guide, philosopher, and friend of two generations of archaeologists. What he was to the Church in Durham may be indicated by his preservation of the windows of Lanchester Church and by other work in ecclesiastical antiquity.

Dr. Greenwell became the local secretary for Durham of the Society of Antiquaries in 1866, and was elected a fellow in 1868. He did not attend to be admitted until 1875, but in the meantime made several communications to the society. His contributions to *Archaeologia* were six, made between 1889 and 1909. The majority of the papers read and exhibits made by him to the society during his fifty-two years' association with it related to prehistoric archaeology, on which he wrote with high authority; but he was equally at home in describing a ring of Alfred the Great's sister, which he had added to his collections, or a portrait of Mary Tudor, belonging to the Dean and Chapter. He was an indefatigable explorer and a discriminating collector. Before 1880 he had accumulated objects from 234 barrows, and these he presented to the British Museum. No

sooner had he given away or sold one collection than he began to make another. This happened more than once. The latest instance is that of the fine collection of remains of the Bronze age which was acquired for the British Museum a few years ago by the munificence of a lamented American millionaire. We are much mistaken if, since then, another collection has not been well begun. He lectured at the Royal Institution in 1867 on the Yorkshire barrows.

Dr. Greenwell joined the Ethnological Society in 1868, was forthwith elected on its council, and contributed to it in 1870 an account of the opening of Grimes Graves near Brandon, in Norfolk. He was elected a fellow of the Royal Society in 1878. He addressed the Royal Archaeological Institute at Durham in 1908 with "extraordinary knowledge and lucidity" on the development of the spear and dagger during the Bronze age.

Of his published works, besides his papers in the Transactions of these and many other societies, and several ancient records edited by him for the Surtees Society, the principal is that on British barrows, in which the late Prof. Rolleston collaborated.

Dr. Greenwell was honorary D.C.L. of Durham, a man of versatile accomplishments and much learning. He was an adept in the sport of fly-fishing, which he practised almost to the last. Genial and witty, warm-hearted and enthusiastic, he lived every day of his long life.

MISS ETHEL SARGANT.

BY the death of Miss Ethel Sargent, which occurred on January 16, after a brief illness, at the age of fifty-four, botanical science has sustained a severe loss. Miss Sargent was educated at the North London Collegiate School and at Girton College, Cambridge; she took the two parts of the Natural Sciences Tripos in 1884 and 1885. In 1913 she was elected to an honorary fellowship of Girton College. She was a fellow of the Linnean Society, and was the first woman to serve on its council. At the time of her death she was president of the Federation of University Women.

Miss Sargent spent a year at Kew (1892-93), working at the Jodrell Laboratory under Dr. D. H. Scott; she always spoke with gratitude and enthusiasm of the training in the methods and spirit of research which she received at his hands. A paper written in collaboration with Dr. Scott appeared in the *Annals of Botany* in 1893. All Miss Sargent's later research was carried out privately, for some years in a laboratory built in the grounds of her mother's house at Reigate, and eventually at her own home in Girton village, Cambridge. Her earlier work, after leaving Kew, was cytological, and dealt with the formation of the sexual nuclei in *Lilium martagon*. Her attention to the structure of the embryo-sac bore further fruit at a later date in an interesting theory regarding the meaning of "double fertilisation" in Angiosperms, which she developed in the *Annals of Botany* for 1900.

But Miss Sargant's principal work lay in the direction of anatomy and morphology: she possessed the "morphological sense" to a most remarkable degree, and the anatomy of seedlings became a subject which she made peculiarly her own. She formed a unique collection of microscopical preparations illustrating the vascular anatomy of monocotyledonous seedlings. She was the first botanist to apply microtome technique to the elucidation of the problems presented by the anatomical transition from stem to root; owing to the extreme shortness of the hypocotyl in many monocotyledonous seedlings, it is often quite impossible to demonstrate their structure by means of hand sections alone. In a series of papers, the great majority of which appeared in the *Annals of Botany*, she developed her well-known theory of the origin of monocotyledons, based upon the results of her researches into seedling structure. In 1913 she was president of Section K (Botany) at the Birmingham meeting of the British Association, being the first woman chosen to preside over a section. She took for the subject of her address "The Development of Botanical Embryology since 1870," and gave a masterly review of a difficult and controversial field, in which she had herself broken much new ground.

NOTES.

THE gold medal of the Royal Astronomical Society has been awarded by the council of the society to Mr. John Evershed for his investigations of radial motion in sun-spots and other contributions to astrophysics. The Hannah Jackson (*née* Gwilt) gift has been awarded to the Rev. T. E. R. Phillips for his observations of planets, double stars, and variable stars. The awards will be presented at the annual general meeting to be held on Friday, February 8.

THE scheme for the reconstitution of the Labour Party, to which we referred last week (p. 404), providing for representation of producers "by brain" as well as "by hand," was submitted by Mr. Henderson on behalf of the executive to the conference at Nottingham on January 23. After discussion it was decided that the draft scheme should be referred to the affiliated societies, and that another conference should be called in a month's time to consider it.

THE proposed formation of a British Association of Chemists will be discussed at the meeting of the London Section of the Society of Chemical Industry to be held at the Royal Society of Arts on Monday, February 4, at 7.30 p.m.

THE death has occurred, in his sixty-seventh year, of Mr. Louis P. Gratacap, curator in mineralogy in the American Museum of Natural History since 1900. For the previous nine years he had held the post of assistant curator. His publications included a standard "Guide to Mineral Collections," "Popular Mineralogy," and "Geology of the City of New York."

THE death is announced, at the early age of forty-five, of Dr. T. C. Janeway, who occupied, at Johns Hopkins University, the chair of medicine formerly filled by Sir William Osler. He was a member of the Board of Scientific Directors of the Rockefeller Institute for Medical Research, and secretary of the Russell Sage

Institute of Pathology. Prof. Janeway was the author of "The Clinical Study of Blood Pressure."

THE Research Defence Society and the Association for the Advancement of Medicine by Research have been united into one society, which will retain the name and official address of the Research Defence Society. All such communications as used to be made to the association should, therefore, now be made to the honorary secretary of the Research Defence Society, 21 Ladbroke Square, London, W.11.

IN consequence of a statement from F. I. Faltz-Fein directing attention to the dangers which, in the present circumstances, threaten the existence of the famous zoological park and horse-breeding station on his estate at Ascania Nova, the council of the All-Russian Horse-breeders' Congress brought the matter to the notice of the Petrograd Academy of Sciences, with the earnest request that immediate and energetic measures be taken for the protection of an establishment which is of very great scientific value, and justly considered the pride of Russia. It is announced in the December Bulletin of the Academy that, in response to this appeal, the Government has instructed Maj.-Gen. P. K. Kozlov to take the necessary measures.

ACCORDING to reports in the French Press, a "General Congress of Civil Engineering" will be held in Paris on March 18-23 next. The objects of the conference, as recently explained to the French Minister of Commerce and Industry, are to awaken the French nation to the need for increased industrial enterprise and the attainment of industrial agreement. The Minister expressed the hope that the conference would give very close attention to such questions as the saving of fuel and the thorough utilisation of intellectual and mechanical effort; wage war on waste of all kinds; and advocate the systematic utilisation of by-products, and the adoption of improved scientific mechanical methods of production—in short, give that place to applied knowledge that it now merits.

THE Minister of Reconstruction has appointed the following committee of manufacturers and business men to consider the provision of new industries for the engineering trades:—The Hon. H. D. McLaren (chairman), Mr. C. Bennion, Sir George Bullock, Bart., Mr. F. H. Crittall, Mr. R. Dumas, Mr. W. B. Lang, Mr. C. A. Lister, Mr. P. J. Pybus, Mr. G. H. Sankey, Sir Percy Stothert, Mr. J. Taylor, Mr. W. Taylor, Mr. W. Thom, and Sir W. Rowan Thomson. The duties of the new committee will be to compile a list of the articles suitable for manufacture by British engineers which were either not made in the United Kingdom or made in insufficient quantities, and for which there is likely to be a demand after the war. The need for such a list of articles and for some organised effort to make them at home has been amply shown by the war, which has revealed our dependence on many—even the enemy—countries for articles vital to our industries, and even to our war equipment.

By the death of Lieut. E. J. Woodhouse in France on December 18 last, from wounds received early in the month, the Indian Agricultural Service has lost a capable organiser and adviser. Educated at Marlborough, Lieut. Woodhouse entered Trinity College, Cambridge, in 1903. In 1906 he graduated with honours in the Natural Sciences Tripos, and the following year obtained the University diploma in agriculture. He then proceeded to India to take up the post of economic botanist to the Government of Bengal. Three years later he was appointed principal of the Agricultural