scientific faculty, the value of the work was apt to be largely lost. The discovery of new things was one matter, and was a characteristic of the academic type of mind; the discovery of new uses for things was another matter, and was typical of the commercial mind. In this work of research the universities were peculiarly fitted to take an important—a leading—part. The research should not necessarily be pursued along definite lines with a definite object in view; the great discoveries were not made in that way. The Department of Scientific and Industrial Research might well endow university scientific research on chemical, metallurgical, and engineering work, supervising and co-ordinating and publishing the results. Effort was largely commensurate to the prize offered, and the discoverer should be rewarded for his labour and genius; but that would be a matter easy of arrangement. Research associations undoubtedly performed useful, even highly valuable, functions, but the wind of science bloweth where it listeth, and the time was ripe for a realisation of the fact that scientific research could not profitably be hampered by restrictions confining the efforts of those who were employed therein. It was of the essence of research that it should be free and untrammelled.

Sir Richard Gregory proposed a vote of thanks to the speakers, and remarked that the addresses of their two distinguished new vice-presidents were of a very inspiring and instructive character. Dean Inge had referred to the fact that a disease produced in the organism an anti-toxin to fight it, and the anti-toxin, Sir Richard suggested, that existed now for certain social diseases was the British Science Guild. It was really a British Efficiency Guild, and in the forefront of its activities must be the promotion, not only of research, but also of the application of research. We had numerous scientific societies, each of which was concerned with adding to scientific knowledge by research, but there was no society or organisation in the kingdom which existed, as the Guild existed, to see that knowledge thus gained was made good use of for national welfare. That was why the Guild could perform a most useful service in bringing before the public the value of research, science, truth, and righteousness to a nation that desired to maintain a leading position in the world. The trade unions referred to by Dean Inge and Sir Richard Redmayne were not trade unions, but wage-unions. If they were really trade unions, and if Labour were united with science to increase production instead of merely scrambling for pence on a Tom Tiddler's ground, then together they would be the greatest force in our Constitution.

On the proposition of Lady Lockyer, hearty thanks were also accorded to the Warden and Court of Assistants of the Worshipful Company of Goldsmiths for the use of their hall. Lady Lockyer paid a graceful tribute to the munificence of the Goldsmiths' Company in educational and other directions, and made an appeal to those who were not members of the British Science Guild to become associated with it, whether they were scientific workers or not.

University and Educational Intelligence.

CAMBRIDGE.—Mr. E. K. Rideal, Trinity Hall, has been appointed to the Humphry Owen Jones lectureship in physical chemistry. Dr. L. Cobbett, Trinity College, has been re-appointed University lecturer in pathology.

The Rede lecture was delivered on June 9 by Sir Napier Shaw on "The Air and its Ways." The lecturer likened the atmosphere to a steam-engine, for which the heated surface of the earth and sea acted as boiler, the cold polar regions and the cold upper air as condenser, and the normal winds and cyclonic depressions as flywheel. The normal winds were the equatorial belt of air passing westwards and the circumpolar motion of the upper air travelling eastwards. Between them were the anticyclonic circulations which, like the driving-belts of tanks, carried forward the westward moving air of the equatorial, and the eastward moving air of the polar, circulation.

MANCHESTER.—At the meeting of the council of the University on June 8 the following appointments were made:—Miss Winifred S. Clarke, lecturer in education; Miss May A. B. Herford, lecturer in classical archæology; Mr. S. Williams, assistant lecturer in botany; Mr. W. Cartwright, assistant lecturer in metallurgy; Mr. P. I. C. Gibson and Mr. A. Haworth, demonstrators in pathology; and Miss Georgina May Duthie and Mr. R. C. Shaw, demonstrators in anatomy.

Mr. W. E. Alkins has resigned his appointment as lecturer in metallurgy as from September 29 next.

OXFORD.—Mr. W. Brown, Christ Church, has been elected Wilde reader in mental philosophy.

ST. ANDREWS.—The honorary degree of LL.D. is to be conferred on July 12 upon the following:—Prof. W. M. Bayliss, Sir William Henderson (chairman of Dundee Technical College), Emeritus Prof. D. Macewan, and Prof. A. N. Whitehead.

THE University of Wales has decided to confer the honorary degree of D.Sc. upon Prof. T. W. E. David, Sir J. J. Dobbie, and Prof. A. Gray.

MR. R. J. PYE-SMITH, formerly professor of surgery in the University of Sheffield, has bequeathed the sum of 1000*l.* to the University in question for a chair in surgery.

MR. A. MACCULLUM, of Edinburgh, who gave 25,000*l.* during his life towards the erection of the new Royal (Dick) Veterinary College buildings in Edinburgh, has bequeathed, under certain conditions, on the death of his wife, a further sum of 10,000*l.* for equipping and furnishing the college buildings.

THE following appointments have been made in connection with the Royal College of Surgeons of England:—Dr. F. W. Edridge-Green, Mr. V. Z. Cope, and Prof. T. Swale Vincent, Arris and Gale lecturers; Prof. S. G. Shattock, Erasmus Wilson lecturer; Sir Arthur Keith, Arnott demonstrator; and Sir Charles A. Ballance, Thomas Vicary lecturer.

THE London School of Economics and Political Science is prepared to award one or more post-graduate studentships, of value up to 200*l.* a year for one or two years, to suitable candidates who wish to combine research with a certain amount of teaching at the school, or to follow approved courses of study with the view of qualifying themselves for such teaching. Applications, stating qualifications and giving two references, should be made as soon as possible to the Director, London School of Economics and Political Science, Clare Market, London, W.C.2.

THE Selborne Society has issued a list of lectures, most of them illustrated by lantern-slides, which its lecturers are prepared to give during the coming

winter season. The officers of the society deliver five lectures dealing with its objects and activities, *e.g.* Gilbert White and Selborne, the Brent Valley bird sanctuary which the society has recently secured, the value of science to the community and suggestions for the organisation of natural history societies, and archæological and historical rambles. Beyond these official lectures there is available a long list of lecturers who cover a wide range of subjects. Prof. J. R. Ainsworth-Davis lectures on science and agriculture; Capt. W. H. S. Cheavin on nature study, particularly in its microscopic aspects; the Rev. J. T. W. Claridge on stars and comets, and he also gives a historical lecture entitled "Some Famous Astronomers"; Mr. O. H. Latter deals with the nature study of sand dunes, wasps, and evidences of evolution; Prof. J. T. MacGregor-Morris lectures on electricity in home-life and in nature; Mr. F. Martin-Duncan deals with the natural history of the sea and the forest, and particularly with the insect world; Mrs. R. A. Proctor lectures on astronomy in everyday life and the story of the moon; Mr. J. J. Ward deals with pond-life, insects, animal life and evolution, and the wonders of wild and garden flowers; Mr. W. M. Webb, in addition to the lectures on the objects of the Selborne Society, which as general secretary of the society he delivers, also gives lectures on evolution in dress and plumage, mimicry, and protective resemblance in animals. Such is a selection from the list of the better-known lecturers. Further information regarding the lectures can be obtained from Mr. P. J. Ashton, extension secretary, 72 High Street, Bromley, Kent.

IN view of the announcement made in NATURE of April 14 last, p. 220, that the Finsbury Technical College will not be closed in July next, it is of interest to read the correspondence which passed during last winter between the City and Guilds Institute and the London County Council on the subject. It has been published in full in the forty-first annual report of the council of the City and Guilds Institute, and is preceded by a statement by the council on the circumstances under which it was decided to close the college. In the face of the decision of the London County Council to make the Northampton Polytechnic its engineering school and the tendency of the policy of the Board of Education to substitute public for private effort in education, it was not considered feasible or practicable to raise the 13,000*l.* per annum required in excess of pre-war expenditure. However, towards the end of last year the education authorities of the London County Council reviewed the matter, and decided that since a depletion of the facilities for technical education was highly undesirable they would assist the college. Various minor conditions have been imposed, but in effect the London County Council will contribute a sum of 10,000*l.* per annum for five years provided that the City and Guilds Institute finds 3500*l.* per annum for a similar period for the maintenance of Finsbury Technical College. The council of the City and Guilds Institute expresses the hope that the City Corporation and the contributory livery companies will continue to give their support in order to make possible the development of their educational schemes. An interesting list in the report is that showing the contributions made yearly to the institute since 1878. The Goldsmiths' Company heads the list with contributions amounting to 275,508*l.*; then come the Clothworkers', Fishmongers', and Mercers' Companies with gifts ranging from 152,000*l.* to 101,000*l.* The remainder of the report is devoted to a review of the academic activities of the City and Guilds (Engineering) College during the year 1919–20.

Calendar of Scientific Pioneers.

June 16, 1889. Gaetano Cacciatore died.—The able director of the Palermo Observatory, in which position he succeeded his father in 1843, Cacciatore extended the observatory and contributed memoirs to the Società degli Spettro-scopisti.

June 18, 1816. Thomas Henry died.—Henry was a Manchester apothecary, the translator of Lavoisier's chemical essays, and the first to observe the use of carbonic acid to plants. In 1781 he became the first secretary of the Manchester Literary and Philosophical Society, and in 1807 was chosen president.

June 18, 1905. Per Theodor Cleve died.—Professor of chemistry in the University of Upsala, Cleve was well known for his researches on the rare earths. He investigated the compounds of yttrium, erbium, thorium, lanthanum, and didymium, and he showed that scandium, discovered by Nilson, was identical with the ekaboron of Mendeléeff.

June 19, 1715. Nicolas Lemery died.—The contemporary of Mayow and Homburg, Lemery wrote a "Cours de Chimie," which was translated into various languages and passed through thirteen editions in his lifetime. This work, from which the fancies of the alchemists were excluded, was one of the first in which chemistry was divided into organic and inorganic. Lemery was a Paris apothecary.

June 19, 1820. Sir Joseph Banks died.—For more than forty years president of the Royal Society, Banks was indefatigable in his exertions on behalf of natural science. He made four oversea journeys himself, assisted various expeditions, founded the African Society, and advised George III. as to the Kew Gardens. His library and collections were bequeathed to the British Museum.

June 19, 1844. Etienne Geoffroy Saint-Hilaire died.—The pupil of Daubenton and Haüy and the friend of Cuvier, in 1793 Saint-Hilaire became professor of zoology in the Musée d'Histoire Naturelle. In 1798 he accompanied Napoleon to Egypt. Admitted to the Academy of Sciences in 1807, he afterwards became professor of zoology and comparative anatomy in the Faculty of Sciences. Among his most important works was his "Philosophie Anatomique" (1818–22).

June 20, 1794. Félix Vicq d'Azyr died.—The successor of Buffon in the Paris Academy of Sciences and physician to Louis XVI., Vicq d'Azyr wrote an important work, "Discours sur l'anatomie," in which he stated in a masterly way the methods of biological science.

June 21, 1846. James Marsh died.—The assistant to Faraday at the Royal Military Academy, Woolwich, Marsh invented electromagnetic apparatus, and also the quill percussion tube for ships' cannon, and in 1836 discovered the Marsh test for arsenic.

June 21, 1857. Louis Jacques Thénard died.—Born in poor surroundings, Thénard was assisted by Vauquelin, and gradually rose to a high place among French chemists. He held chairs at the Ecole Polytechnique, the Collège de France, and the Sorbonne, and though he did important work on the compound ethers and discovered hydrogen peroxide, he was, above all, a great teacher.

June 21, 1874. Anders Jons Ångström died.—Ångström held the chair of physics in Upsala University and was secretary to the Royal Society there. He did pioneering work in spectroscopy, in 1862 discovered the existence of hydrogen in the sun, and in 1868 published his map of the normal solar spectrum. Knut Johan Ångström (1857–1910), also a well-known physicist, was his son.

E. C. S.