

grandeur of the crests and pinnacles of massive rock and ice which tower to the heavens in stately solitude, great mountain ranges have a further claim to distinction in an age of pressing utilitarian needs. The Alpine panorama with its multitudin-

ous snowfields, glaciers, torrents, lakes, and rivers is no less wonderful as an example of how Nature contrives to compensate a country for its economic deficiencies in one respect by benefits of equivalent value, though of another kind.

Obituary.

DR. LEWIS EVANS.

IN the Lewis Evans Collection of Historic Scientific Instruments is a small jointed rule of ivory, inset with a compass needle, and engraved as a portable sundial. It was a special favourite of Dr. Lewis Evans, whose death occurred on Sept. 25 last, because it bears the inscription, "Registered 1853", which by a happy chance was the year of his birth, on Feb. 15. Twenty years later Francis Galton might well have included the Evans family among those English men of science whose hereditary influences and education he described at the Royal Institution, for at least four generations have achieved scientific distinction. The Rev. Lewis Evans, vicar of Froxfield, 1788-1827, was an accomplished mechanic and astronomer, who ground his own specula, recorded observations, and continued to 1864 the calculations on Ferguson's Astronomical Instrument and Rotula, published in 1817. He had been educated at Merton College, Oxford, was instructor in mathematics at the Royal Academy at Woolwich, and became a fellow of the Royal Society in 1823. He was in the habit of communicating mathematical notes to the *Reading Mercury* under the *nom de plume* of 'Felix Ford' (anagram of Froxfield), some of which are preserved with his lecture MSS. in the Lewis Evans collection. One of his sons, Thomas Simpson Evans, LL.D., became an assistant at Greenwich and, later, mathematical instructor at Woolwich. His grandson, Sir John Evans, K.C.B., for many years treasurer of the Royal Society, attained to special eminence as an antiquary, a branch of study which has been materially extended by both his sons—Arthur, who has also the scientific blue-ribbon of F.R.S., and Lewis, the subject of this notice, who died on Sept. 25. On the distaff side, two ancestors had also achieved similar distinction, namely, John Dickinson, F.R.S., F.S.A., and George Dionysius Ehret, F.R.S., the inimitable flower painter, who was born at Erfurt in 1708, and died at Chelsea in 1770.

Owing to the great demands made upon his time and energy by the needs of a great manufacturing business, Lewis Evans was more than forty years of age before he published his first paper, "On Pocket Sundials", a modest article illustrated by neatly executed cuts of the author's own drawing. This was followed by a fuller contribution upon the same subject to Mrs. Alfred Gatty's standard "Book of Sundials", 1900. His knowledge was largely based upon his own rapidly expanding collection of scientific instruments, in which a perfect Roman portable dial of about A.D. 300 was then one of the greatest treasures. In 1901 there appeared in *Archæologia* the account of another of his discoveries—the original dial of

gilt brass made for Cardinal Wolsey by Nicholas Kratzer, who at the time was "reading Astronomy in the University by the command of King Henry VIII. and soon after made by Cardinal Wolsey his Mathematical Reader when he first settled his lecture there". Kratzer was made a fellow of Corpus by Richard Fox in A.D. 1517.

From this time on, many writers at home and abroad drew upon the experience of Dr. Evans, notably Dr. Joseph Drecker of Dorsten, and with the dispersal of other collections his own collection grew. It was many years before he could obtain an astrolabe, but "nothing succeeds like success", and the first he acquired was soon followed by some three score others, the most important of which he figured and described in "Some European and Oriental Astrolabes", in the *Archæological Journal* in 1911. In 1922 he offered the whole of his unique collection of dials and early scientific books and instruments to the University of Oxford. It is by far the most important collection of the kind that has ever been given to a university; and owing to peculiar circumstances, the present gift is a lasting memorial to the noble-minded generosity of the donor—for, like the Mensing collection, it might quite easily have been sold for a fortune to America, and thus have been lost to Europe. Incidentally it has served as a nucleus around which other benefactors, including many Oxford colleges, have deposited instruments and objects of value for illustrating the progress of scientific studies and research in the University. In the past five years the space needed for the proper exhibition of the collection has doubled in area, and apparatus of the very greatest importance has had to be refused, on the ground that the best exhibition space available in the Old Ashmolean Building is still being occupied by the staff and books of the English Dictionary, although that work was completed many months ago.

As was recently pointed out in *NATURE* in a letter signed by the president of the Institute of Physics and others, scientific instruments, often the landmarks of invention, are lost so long as they are hidden and not in the charge of someone who appreciates their scientific value. No one realised this more vividly than did Dr. Lewis Evans himself. Although an ardent admirer of art and craftsmanship, he felt that to place unique instruments of science among art objects in a gallery of art, as is the case in the British Museum and at South Kensington in London, or at the Ashmolean Museum in Oxford, or to group scientific apparatus among books and to catalogue it as 'manuscripts', as is now the practice in the Bodleian Library, is both derogatory to science and destructive to the proper study of its history. He therefore determined that

his collection should either 'go to the hammer', or else be shown as a scientific collection with all the advantages of exhibition that art collections usually enjoy. By the greatest good fortune, a part of the most historic building connected with the early history of science in Britain, the Old Ashmolean, was available, and this being approved by Dr. Evans, was allocated by the University to his collection. The Goldsmiths' Company voted £1000 for initial expenses, and is now offering £500 more if and when a greatly needed extension of exhibition space is forthcoming either in the Old Chemical Laboratory or in the original meeting-room of the Oxford Scientific Society of 1683. A benefactor to complete the good work which Dr. Lewis Evans has so generously begun is urgently needed, for the losses of most important instruments are great and are continuing.

R. T. G.

THE RIGHT HON. EDWARD ALLEN,
BARON BROTHERTON OF WAKEFIELD.

THE career of a great industrial leader is not one which demands from him a platform exposition of his aims, policy, and programme as a condition of success, but perhaps all the more on that account any self-revealing utterances from such a man have a peculiar interest and special value. With Lord Brotherton, who died on Oct. 21 at the age of seventy-four years, it so happened that, in the last few months of his long and strenuous life, circumstances combined to break the barriers of constitutional reserve and led him to speak to sympathetic listeners of his experiences and aspirations.

Three occasions, different in character, come to the mind of the present writer. The first of these was the laying of the foundation-stone of the Brotherton Library at the University of Leeds. Lord Brotherton there spoke in firm voice and measured sentences of carefully prepared wording to an audience of the University and its friends. It was a dignified expression of what was in his mind in making this generous monetary gift, which should enable the University to erect a noble building for the housing of its library, and in adding thereto not only the fine collection of books which it had been his pride to bring together in his own home, but also an endowment to secure their care and maintain their usefulness.

On the same evening Lord Brotherton was the guest of the University at a dinner, and there, speaking with feeling and in simple, direct, and unprepared language, it was evident that he had the greatest possible wish to escape from his habitual reserve, and to get into closer human contact with the members of the Senate and others whose academic life and outlook were necessarily so different in some respects from his own. The sincerity and unconventionality of this speech were remarkably impressive.

On the third occasion, a little later, Lord Brotherton was in the midst of his fellow-members

of the Society of Chemical Industry, who had marked their appreciation of his high standing and achievements as a master of their calling by conferring upon him the Messel medal and inviting him to deliver the Messel lecture at the annual meeting of the Society in Birmingham. He expressed at once his intention of dealing with what he knew best, and told the story of his own connexion with industrial chemistry. He told how he left Owens College to engage, in the first place, in the manufacture of ammonium sulphate, and showed how he was able to extend his operations in various directions, mainly by organisation, insight into the opportunities presented by the introduction of new chemical processes, and the determination to place his resources boldly at the back of any venture which had won his confidence. So came into being and good fortune the firm which bore his name, and so later arose his connexion with the Cassel Cyanide Company, of which he became chairman in succession to Sir George Beilby.

These three occasions of self-explanation came close in time to the termination of a career marked in equal measure by outstanding achievement and the exercise of a large-minded generosity.

J. W. COBB.

DR. E. H. WILSON.

THE death of Dr. Ernest Henry Wilson on Oct. 15, as the result of a motoring accident, will be lamented in botanical and horticultural circles, not only in Britain and America, but also throughout the world, for Wilson's activities were truly international. The news to hand from the Arnold Arboretum states that Mr. and Mrs. Wilson were returning from a visit to their daughter and her husband, Mr. and Mrs. G. L. Slate, at Geneva, New York State, when their car skidded on the greasy surface while travelling on the Boston Road, Worcester, Mass., crashing through a fence and down a 40-foot embankment. Mrs. Wilson was killed outright, and Dr. Wilson died soon after admission to hospital.

Wilson was born at Chipping Campden, Gloucestershire, on Feb. 15, 1876. He entered the Birmingham Botanic Gardens as a student in 1892 and moved to Kew in January 1897. In the lecture room and in the practical work of the Gardens it is evident that Wilson soon attracted attention, as he obtained first place in several of the lecture courses, and was awarded the Hooker Prize of the Mutual Improvement Society for an essay on Coniferæ. Wilson's next move was to the Royal College of Science, South Kensington, where he obtained a studentship with a view to becoming a teacher in botany.

At this time, the late Dr. Augustine Henry was sending home specimens—a few seeds, and letters descriptive of the floral wealth of Hupeh, China. Messrs. Veitch, of Chelsea, decided to send out a collector, and asked the then Director of Kew, Sir William Thiselton-Dyer, to recommend a suit-