early telescopes, sextants, and surveying instruments—all most interesting relics of the past—it is well that the great country of America, where science is relatively so new, should have some material record of the tools by which astronomical knowledge has been painfully won, and taught, in the Old World. Thanks to the generosity of yet another recruit to the ranks of noble benefactors who have given the United States its greatest institutions, Chicago now takes the lead among American cities equipped for the study of the instruments of ancient astronomers. Thanks to Dr. Adler, within a few months the city has acquired historical riches surpassed only by the famous collections of European cities, such as Munich, Dresden, Paris, London, and the Lewis Evans Collection at Oxford. The selection has been ably made and arranged by Mr. Adler's lieutenant, Dr. Fox, and the instruments will be on view at the Chicago Centenary Exhibition this year, with the planetarium as the most considerable side-show. We require benefactors like Mr. Adler in Great Britain.

Obituary.

SIR OTTO BEIT, K.C.M.G., F.R.S.

DURING the last fifty years, and more especially in the last twenty-five, much has been done in Great Britain to promote the advancement of the science of medicine, by providing facilities for the furtherance of research, both by the development of laboratories of high efficiency and also by the foundation of research fellowships to enable investigators of promise to pursue their work. Many generous benefactors have taken a part in this work; some have built institutions or laboratories, others have endowed professorships, and others have founded research fellowships.

Amongst those who have devoted their benefactions to the foundation of fellowships, the name of Sir Otto Beit will always be honoured, not merely, or even mainly, for the magnitude of his foundation, which amounted to nearly a quarter of a million sterling, but rather for the breadth of view that determined the scope of the scheme that was founded as a memorial by him to his brother, the late Mr. Alfred Beit. Mr. Alfred Beit had taken a considerable interest in certain proposals that had been made in the early years of the present century for improving the teaching of the earlier subjects of the medical curriculum of the University of London, and had made a gift of £25,000 towards this object and bequeathed a further like sum for the same purpose. The scheme failed to secure the necessary support of those concerned, and, consequently, the gift and the legacy ultimately lapsed, and reverted to the residuary legatee, Sir Otto Beit. He decided to use the money to establish a memorial to his brother, to whom he was devotedly attached; and after consultation with, and advice from, Sir James Kingston Fowler, the late Prof. Starling, and others, the scheme was promulgated in December 1909 as a "Memorial to his brother, Mr. Alfred Beit, to promote the advancement by research of Medicine, and the Allied Sciences in their relation to Medicine".

Although the scheme was originally drafted on the basis of the provision of a capital sum of £25,000 and the foundation of three fellowships, it transpired that Sir Otto had increased the benefaction tenfold, and one, at any rate, of his advisers only learnt this by telephone from him, twenty-four hours before the announcement was made publicly. This act exemplifies not only the great generosity of the donor, but also the decision with which he acted when he considered the proposals put before him were such as to deserve support.

Although the Foundation is justly remarkable for its magnitude, it is more especially to be commended for its scope. Many benefactors would have desired to impose limitations; some would have failed to realise that medicine can be furthered in any other way than by research directed to some immediate so-called practical object, for example, the eradication of some individual disease. Not so in the case of Sir Otto Beit; and hence the inclusion in the scheme of the "Allied Sciences in their relation to Medicine". He was well aware of the close and intimate connexion of many sciences, not only with the science of medicine, but also with the practice of the art of medicine.

The actual scheme of administration of the Foundation was modelled on that adopted by one of the City companies, namely, the Worshipful Company of Grocers, in its scheme for the award of the well-known Grocer Research Scholarships in Sanitary Science. This City company in the early 'eighties established three scholarships for the promotion of research into the nature and prevention of disease, and always allowed its scientific advisory committee a wide discretion in interpreting the relation of the proposed research to the actual practice of medicine; and many Grocer scholars have made notable additions to knowledge in physiology and in pathology as well as in pure medicine, and thus medicine has been assisted both directly and indirectly. This same policy has characterised the awards of the Beit Fellowships; and the record of the discoveries of the Beit fellows in the course of the last thirty years is one of which any Foundation might be justly proud. Sir Otto Beit, as chairman of the Beit Trustees, took a personal and active interest in the work of the fellows, and was remarkably conversant with their work, as throughout his life he took a lively interest in the progress of medical knowledge.

In November 1928 he made another very notable benefaction to medical science, by giving King Edward's Hospital Fund £50,000 for the purchase of radium for the benefit of London hospitals; and shortly before his death he gave a further £8000, required by King Edward's Hospital Fund to complete the purchase of a further quantity of radium. Here again the value of the gift was greatly increased by the wise foresight of the donor. Many donors would have been satisfied by merely providing radium for the relief of suffering, but Sir Otto Beit went much further by saying that he "should

like the Committee to endeavour to secure that the hospitals thus to be provided on loan with radium, should be preferably those in which the cure of disease, or the alleviation of suffering, is associated with a keen interest in the furtherance of knowledge 'for the relief of man's estate'".

This shows very clearly the wide view and the profound interest he took in the advance of knowledge, and his great faith in the paramount necessity of research. Few laymen had such an intelligent appreciation of the problems of medical research, and of the need of much patient work before the realisation of success; and he was not one who was always expecting immediate and striking results to follow on a programme of work.

Sir Otto Beit was elected a fellow of the Royal Society in 1924, and certainly it may be said of him, in the words of the statutes of the Society, that he had "rendered conspicuous service to the cause of science"

JOHN ROSE BRADFORD.

ON the death of Sir Julius Wernher in 1912, Sir Otto Beit took his place as a representative of the Crown on the Governing Body of the Imperial College of Science and Technology, thus preserving unbroken the close connexion of the College with the famous firm of Wernher, Beit and Co. Sir Julius Wernher himself was an original member of the Governing Body, and took an influential part in the negotiations which led to the foundation of the College in 1907. Practically the whole of the endowment of the College since its incorporation has been provided by Sir Julius Wernher, Mr. Alfred Beit, and Sir Otto Beit.

Sir Otto Beit was an active and inspiring member of the Governing Body. A firm believer in the intellectual and practical value of the highest scientific education, he did everything in his power to promote it. In 1913 he created a Trust Fund, which he increased later to £26,500, to provide for Research Fellowships tenable at the College and open to men and women of European descent by both parents, but otherwise of any nationality, being graduates of universities within the British Empire. From time to time he gave sums of money, amounting to £32,500 in all, towards the cost of the Imperial College students' hostel and of the extension to the hostel and the students' union which forms part of a new building now nearing completion. His other gifts, which were many in number, included a sum of £10,000 towards the general development of the College in a time of financial stringency.

These benefactions are illustrative not only of Sir Otto Beit's generosity, but also of his good judgment. He never gave money away indiscriminately; he had a clear insight as to the right thing to do at the right moment. He was always ready to be guided, but never allowed himself to be swamped by the enthusiasm of others. It was this quality which brought him the full confidence of his colleagues, and when in 1919 Sir Francis Mowatt resigned the chairmanship of the finance committee of the Governing Body shortly before his death, there was no hesitation about the appointment of his successor. Sir Otto Beit continued to hold this important post until his death, and though he was greatly handicapped in recent years by ill-health, he worked untiringly to further the interests of the College. He interested himself not only in the government of the College, but also in the life of the students, many of whom are indebted to him for unobtrusive acts of kindness. We have lost a great friend and a great benefactor.

H. T. TIZARD.

PROF. C. E. MOSS.

THE death on Nov. 11 last of Prof. C. E. Moss, at his home in Johannesburg, at the age of sixty, is a serious loss to South African botany and to systematic botany at large. Charles Edward Moss was a native of Cheshire, the youngest child of a Nonconformist minister who settled at Halifax in 1874. He gained his early education at elementary schools in that town, eventually becoming a pupil-teacher. At the age of twenty-three he had a serious illness and his convalescence involved spending much time in the open air. This led to a keen interest in field botany and close acquaintance with the local naturalists, who were at that time a very active body. Moss thus became a competent field botanist before he was able, at twenty-five years of age, to go to the Yorkshire College, Leeds, and work for his degree as well as his teacher's certificate. At Leeds he found Miall's teaching and outlook very acceptable, and in 1896, when the late Dr. W. G. Smith went to Leeds as lecturer in botany, Moss was greatly attracted by the new method of studying and mapping plant communities in the field which had been inaugurated in Scotland by Smith's elder brother Robert.

Moss took his degree in 1898 and collaborated with Smith in the first 'primary survey' of vegetation to be made in England (Leeds and Halifax district), published in the *Geographical Journal* in 1903. He also published several minor botanical studies in local journals. After leaving Leeds he taught at a school in Bradford, and later at Bruton in Somerset, where he applied the new method to the local vegetation with conspicuously successful results. In the Somerset paper, too, which was also published by the Royal Geographical Society (1907), he worked out a logical system of units of vegetation which he elaborated later in another publication (1910), and which was made the basis of the treatment adopted in "Types of British Vegetation" (1911). Moss was anxious to leave schoolmastering, and in 1902, at some financial sacrifice, he migrated to Manchester and lectured in biology at the Municipal Training College, at the same time improving his knowledge of general botany by attending honours lectures at the University.

In 1904 the British Vegetation Committee was founded to facilitate the co-operation of the small band of active workers on the survey of British vegetation. Moss was one of the original and certainly one of the most valuable members of the Committee. His acute logical mind and his