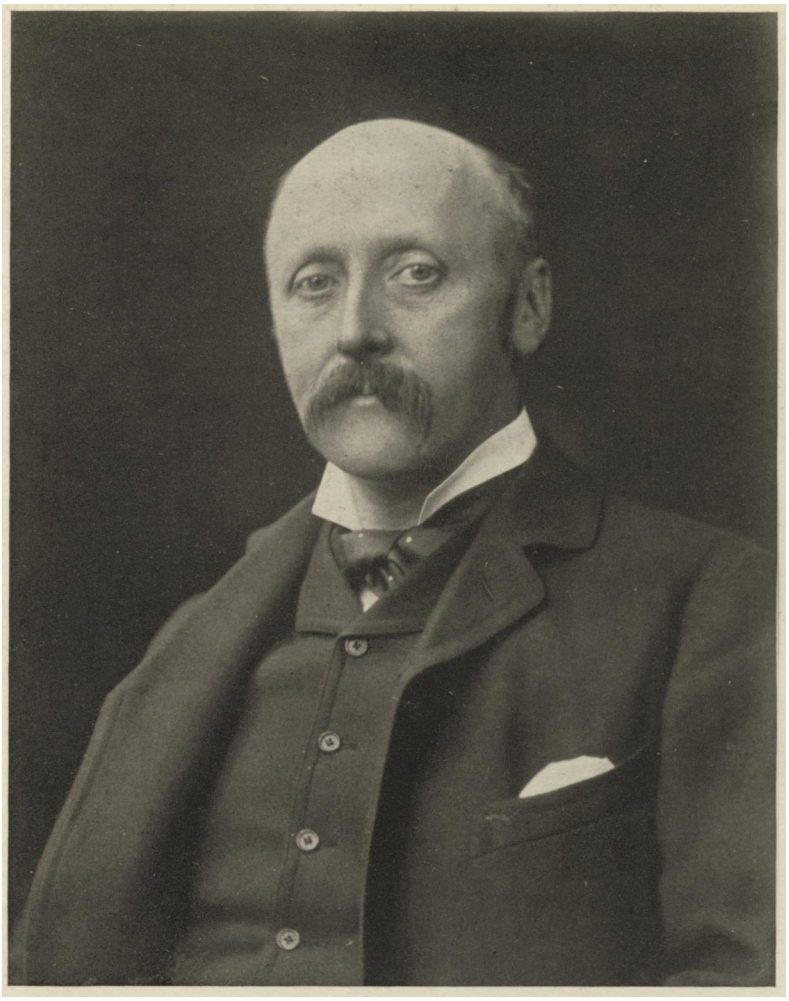

PROFESSOR SIR ISAAC BAYLEY BALFOUR

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BOTANICAL science has sustained a severe loss through the death of Sir Isaac Bayley Balfour towards the close of last year. His life was one of great achievement, and his work has been fruitful in lasting results extending in many directions.

He was born on March 31, 1853, and his early life was spent amid surroundings well fitted to encourage the full development of those fine qualities of mind with which nature had so richly endowed him. His father, John Hutton Balfour, was Professor of Botany in the University of Edinburgh and Regius Keeper of the Royal Botanic Gardens. His connexion with the University on his mother's side goes back to a much earlier period, as his maternal great-grandfather, the Very Rev. George H. Baird, was Principal in the eighteenth century. He was educated as a boy at the Edinburgh Academy, a school which counts so many distinguished men amongst its alumni. He graduated in science and medicine at the University, and pursued botanical study and research at Würzburg and Strassburg. He devoted himself to botany from his early days, and those opportunities for gaining first-hand practical knowledge of horticulture which the Garden at Inverleith provided were utilized to the full, and the foundations were thus laid of that profound knowledge of the horticultural side of botany which was to bear such rich fruit in after years, when he became not only a leader in the botanical world, but a recognized master of the craft of horticulture. No one who has read his masterly exposition of 'Problems in Propagation', which formed the subject of the Masters Lectures in 1912, can fail to be impressed by the breadth of his outlook combined with an astonishing knowledge of the details of horticultural practice, a knowledge which is only too rare amongst the botanists of the present day.

At the age of twenty-one he was chosen to accompany the Transit of Venus Expedition to Rodriguez, and a letter written by him from that island was judged to contain so much interesting and important matter that it was communicated by Sir Joseph Hooker to the Linnean Society. The full memoir, dealing with the flora of Rodriguez, was published in the Philosophical Transactions of the Royal Society in 1879, and it established his position as a systematic botanist of the highest promise.

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Soon after his return from this expedition he went to Germany, and it was at Strassburg that he came under the influence of de Bary, for whom he always entertained a great esteem. In 1879 he was appointed to the Regius Professorship of Botany in the University of Glasgow, and in the following year he visited the island of Socotra. The results of this expedition proved to be of great scientific value, and were published about eight years later by the Royal Society of Edinburgh. Although his tenure of the Glasgow Chair was a brief one (about five years) it was sufficient to give proof of his organizing capacity. His successor, Professor Bower, in an admirable tribute to his memory, published in 'The Glasgow Herald' (December 5, 1922), bearing witness to his constructive powers, draws a comparison between the conditions as Balfour found them and as he left them, and he adds: 'When I succeeded him in 1885 I found the machinery in working order, and it only needed to be kept running.' In 1884 he resigned the Glasgow Chair on being elected to the Sherardian Professorship at Oxford, a post which carried with it a Fellowship at Magdalen College. It was whilst he was at Oxford that the idea of founding the periodical which has taken shape as the 'Annals of Botany' was conceived. He threw himself into the project with all his heart, and it was very largely to his inspiring tenacity of purpose, coupled with his sagacity in steering the enterprise through the many dangers that threatened it during its pre-natal incubation period, that success was finally assured. Fortunately much of the correspondence has been preserved, and this material (which it is hoped may some day find an appropriate home in the Library of the Oxford Botanic Garden) not only serves to show just how this journal came into being, but it also sheds interesting sidelights on the condition of botany in this country at that time. A feeling had arisen, and was growing stronger amongst the younger men of high standing, that all was not well with botany in England. Chief amongst the protagonists were Balfour, Thiselton-Dyer, and Vines. They were fully aware of the great advances that were being made on the Continent, and had realized that changes were coming over the science which were destined profoundly to affect and extend its relations to other branches of knowledge. It was perhaps natural that the older men should view the new movement with some apprehension, but it is a remarkable fact that two of the leaders of the forward movement were themselves distinguished systematists. Against opposition, and in the face of well-meant discouragement, the view was maintained that a new journal was wanted to meet the new conditions, and that when started it would justify its inception by the increased output of research which would follow on new facilities for publication of the results. How well that prescience has been justified the pages of the 'Annals of Botany' have abundantly proved. It is not a little interesting to find that even so experienced and far-seeing a man as Sir Joseph Hooker,

at that time Director of Kew, regarded the new venture with misgiving, and indeed he warned Balfour of the risk he was running of finding all his energies absorbed in thankless administration. But he altered his attitude as time went on, and it was finally to his (Hooker's) suggestion that this periodical owes the name it has always borne. Balfour, at Oxford, was in a favourable position to arrange matters with the Clarendon Press, with the result that in 1887 the 'Annals' made its first appearance, and it has never looked back. Balfour was naturally associated with the editing from the first, and he also assumed the responsibility for its financial direction.

From this short sketch—necessarily very imperfect—it will be seen that he took a very leading share in promoting a movement which, more perhaps than any other, has served to stimulate scientific research amongst the younger generation of the British-speaking botanists.

It was a happy circumstance that the hearty sympathy and active co-operation of American colleagues was enlisted from the start. The leading botanists of that country gave their support, and the mutual interest thus aroused and continued has undoubtedly helped to cement further the ties that naturally link together colleagues on both sides of the Atlantic. In yet another direction Balfour did good service to the cause of botany amongst those who claim English as their mother-tongue by extending the series of translations of the most important German works on the subject. Thiselton-Dyer, Vines, Bower and Scott had already made a beginning with Sachs's Text-book and de Bary's 'Comparative Anatomy'. Balfour was fortunate in securing able collaborators, especially the Rev. H. E. Garnsey. He edited the translations himself, and his wide knowledge added greatly to the value of the series. None of us who are able to look back to those earlier days can fail to realize how rapid was the growth of the 'new botany' during that period, or that much of it was owing to the splendid energy and influence of Balfour himself.

But it was not only in the study and in the laboratory that Balfour made his strong personality felt, during the brief period that he occupied the Oxford Chair. The Botanic Garden was reorganized under his direction, and in this task his Edinburgh and Glasgow experience served him in good stead. But whilst he immensely improved its value from a scientific point of view, his natural artistic feeling enabled him to preserve its best features and its old-world charm. The place was transformed, but the work was directed by a master hand. The present writer well recalls how carefully every detail was thought out, and how every alteration fell naturally into its proper place as part of a well-conceived plan.

In 1888, on the death of Alexander Dickson, Balfour resigned the Oxford Chair to assume the duties of Regius Keeper of the Royal Botanic Garden, Edinburgh, together with the Professorship of Botany in the University and the office of Queen's Botanist in Scotland. Here he settled

down to thirty-four years of strenuous and fruitful work. His genius found ample scope, and the great institution as it now exists at Inverleith may be said to be his creation. Struggles there were against local prejudice, and against powerful opposition elsewhere. Strong feeling was aroused when the walls dividing the arboretum from the rest of the Garden were demolished in the early nineties, and a storm of angry protest attended the throwing open of the Garden to the public on Sundays. But time healed all the sores, and he lived to see his work applauded at home, and the Garden for which he had done so much take its place as one of the greatest institutions of its kind in the world.

No account, however brief, of his work in the Edinburgh Garden can omit reference to the rock garden which forms one of its greatest and most interesting features. Planned on large lines, no expense or trouble was spared to make it worthy of its great setting. No one who is interested in alpine plants can afford to miss making its acquaintance, and many who have walked with him through this fine collection must recall the stimulating presence of the man who had called it into existence, and who knew things of interest about every plant that was growing in it. Space fails for more than a mention of the great collection of Rhododendrons and Primulas, which Balfour got together and cultivated so successfully—in spite of climatic and other difficulties. The grouping of trees in the Garden also demands a word, for wherever it appeared desirable, whether for picturesque or other reasons, there a mature specimen or a group has been moved and planted. Of course the expense was considerable, but the result is its complete justification. Doubtless the open soil, with water moving through it at a level not far removed from the surface, contributed to the success of so serious an undertaking, but it was characteristic of the Regius Keeper to assume large responsibilities with a very accurate knowledge of the factors necessary for success.

The reorganization of the plant-houses was another task which was ably carried through, and the luxuriant way in which the plants growing in open soil thrive under the glass testifies to the skill and knowledge with which the whole work has been carried out and maintained. Indeed the Garden as a whole is what a botanic garden should be: of great scientific value, full of beauty, and abounding in suggestive hints of how the cultivation of a vast range of plants can best be carried on. If he had achieved nothing else in Edinburgh, Balfour's claim to fame would have been sufficiently established, but although the Garden, and all it stood for, perhaps held the chief place in his interest, it was by no means the only one. He designed new laboratories for study and research which are second to none in the country. Furthermore, he was himself a great teacher. Not only was his outlook over his science wide and philosophical, but his immense store of knowledge and the readiness with which he could draw on his large

reserves combined to make his lectures singularly attractive and stimulating. No trouble was spared in their preparation, and the almost prodigal wealth of magnificent material drawn from the Garden served to render them still more unique and impressive.

The 'Notes from the Royal Botanic Garden, Edinburgh', was established by Professor Balfour as an official publication, and although obstacles were put in its path at first it has survived all red-tape discouragement. Unlike many official publications, it pays its way, and some sixty-five parts, making thirteen volumes, have already appeared in the twenty-three years of its existence. It is issued at irregular intervals, depending on the rate of accumulation of suitable matter, and in this connexion it may be of interest to know that when the 'Annals of Botany' was first projected a similar form of publication was strongly advocated in some quarters.

Valuable memoirs on the Primulas and Rhododendrons, towards the elucidation of which Balfour has contributed so much, have appeared in the 'Notes' and also in the Transactions of the Botanical Society of Edinburgh.

Failing health caused him to resign his appointments at Edinburgh, and in 1921 he came south to spend the evening of his life, not in leisure but in further work. Almost to the last he was engaged on Asiatic collections of Primulas and Rhododendrons, groups in which he was recognized as the greatest living authority. The hopes entertained by his friends that relief from official cares and duties might result in convalescence were not destined to be fulfilled, and in spite of every effort, and the devoted care of his wife, the end came on November 30, 1922.

Balfour was a fine botanist, an exceptionally able administrator, and a man of wide intellectual culture. Besides all these he was a staunch friend and a wise counsellor, and no one having enjoyed the privilege of knowing him intimately can ever forget him. Really great men are very rare, and Isaac Bayley Balfour was one of them. J. B. F.